## Image Project Order File Cover Page

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☐ Greyscale Items:	☐ Other, No/Type:	☐ Other Items Scannable by a Large Scanner
☐ Poor Quality Originals:		-
☐ Other:		OVERSIZED (Non-Scannable)
		☐ Logs of various kinds:
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BY: Maria	Date: Q/17/10	/s/
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Comments about this file:	Qı	uality Checked

# Geothermal Drilling Program Other 62

1)	June 10, 2010	Implementation of SB 243 Transferring authority for
		Geothermal permits from DNR to AOGCC.
2)	June 17, 2010	File opening request
3)	May 29, 2010	Backup Info
4)	June 28, 2010	Comments from City of Akutan, Comments from State of
		Alaska
5)	June 29, 2010	Hearing Transcript
6)	July 12, 2010	Final Regulations Package

# Geothermal Drilling Program Other 62

Attorney-Client information located in Confidential Room

Regulations dealing with Geothermal Resources were adopted by the Alaska Oil and Gas Conservation Commission on July 14, 2010, with an effective date of September 30, 2010. The regulations have been made permanent and have been filed by the Lt. Governor. The regulations will appear in Register 195, October 2010, of the Alaska Administrative Code. You may obtain a copy of the filed regulations at http://doa.alaska.gov/ogc/. The following sections were adopted:

20 AAC 25.705	20 AAC 25.710	20 AAC 25.715	20 AAC 25.720
20 AAC 25.730	20 AAC 25.735	20 AAC 25.740	20 AAC 25.990

20 AAC 25 is amended by adding new sections to Article 7 to read:

#### Article 7. Geothermal Resources.

#### Section

- 705. Authority of commission
- 710. Applicability of regulations
- 715. Variances
- 720. Calculation of regulatory cost charges for geothermal wells
- 725. Estimated regulatory cost charges for geothermal wells
- 730. Commission's determination of regulatory cost charges for geothermal wells
- 735. Payment dates for regulatory cost charges for geothermal wells
- 740. Supplemental appropriations

**20 AAC 25.705. Authority of commission.** All wells drilled in search of or in support of the recovery or production of geothermal resources must comply with the regulations contained in 20 AAC 25.705 – 20 AAC 25.740. (Eff. 09/30/2010, Register195)

**Authority:** 

AS 41.06.005

AS 41.06.035

AS 41.06.040

**20 AAC 25.710. Applicability of regulations.** Unless otherwise specified in 20 AAC 25.705 – 20 AAC 25.740, the regulations in this chapter apply to wells drilled in search of or in support of the recovery or production of geothermal resources. (Eff. 09/30/2010, Register195)

**Authority:** 

AS 41.06.005

AS 41.06.035

AS 41.06.040

- **20 AAC 25.715. Variances.** Upon request of the operator for an action under 20 AAC 25.705 25.740 that has application to a single well or geothermal system, the commission may approve a variance from the commission's regulations, if
- (1) the approval provides at least an equally effective means of accomplishing the requirement set out in the commission's regulation; or
- (2) the commission determines that the request is more appropriate to the proposed operation than compliance with requirements of the regulation. (Eff. 09/30/2010, Register195)

**Authority:** 

AS 41.06.005

AS 41.06.035

AS 41.06.040

20 AAC 25.720. Calculation of regulatory cost charges for geothermal wells. (a) The formula for determining a person's regulatory cost charge under AS 41.06.055 is

RCCg = Vgop/Vgtot \*(Ag - Lg)

where

RCCg = the regulatory cost charge for geothermal wells;

Vgop = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, wells for which a Permit to Drill has been issued under AS 41.06.050, of which the person is the operator on the first day of the fiscal year, and that have not before that day been plugged and abandoned and reported as abandoned in accordance with this chapter;

Vgtot = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, all wells for which a Permit to Drill has been issued under AS 41.06.050 and that have not before the first day of the fiscal year been plugged and abandoned and reported as abandoned in accordance with this chapter;

Ag = the appropriation, other than from federal receipts, made for the operating costs related to activities under AS 41.06 of the commission for the fiscal year;

Lg = the lapsed amount of a previous appropriation that is appropriated for the fiscal year under AS 41.06.055(d).

- (b) For purposes of calculating regulatory cost charges, volumes of geothermal resources produced from or injected into wells consist of the applicable volumes reported to the commission under 20 AAC 25.230(b) and 20 AAC 25.432, except that
  - (1) if an operator has failed to report a volume as required, if two or more reported volumes are inconsistent, or if the commission determines that a reported volume is otherwise unreliable, the commission may calculate or estimate volumes as it considers appropriate;
  - (2) the commission may add the volume of a substantial spill or other release of geothermal resources that is not included in a report under 20 AAC 25.230(b) or 20 AAC 25.432.
- (c) For purposes of determining volumes under AS 41.06.055(b) and 20 AAC 25.705 20 AAC 25.740 9,000 cubic feet of gaseous geothermal resources has a volume that is the equivalent of one barrel of liquid geothermal resources.
- (d) For purposes of AS 41.06.055(a) and 20 AAC 25.705 20 AAC 25.740, a well is considered plugged and abandoned and reported as abandoned in accordance with this chapter if the well has been abandoned in accordance with 20 AAC 25.105 and 20 AAC 25.112 and a complete well record for the well, including a description of plugging operations, on a Well Completion or Recompletion Report and Log (Form 10-407) as required by 20 AAC 25.070(3) has been filed with the commission after abandonment. (Eff. 09/30/2010, Register195)

**Authority:** 

AS 41.06.005

AS 41.06.040

AS 41.06.055

AS 41.06.035

AS 41.06.050

- 20 AAC 25.725. Estimated regulatory cost charges for geothermal wells. (a) Before determining regulatory cost charges for a fiscal year under 20 AAC 25.730 the commission may establish estimated regulatory cost charges for geothermal wells to be paid during the first quarter of the fiscal year. The amount of an estimated regulatory cost charge for geothermal wells is one-fourth of the commission's reasonable estimate, based on information then available, of what the person's total regulatory cost charge for geothermal wells will be for that fiscal year.
- (b) The commission will provide a person subject to an estimated regulatory cost charge for geothermal wells with written notice of the amount of the charge and the payment date. The commission will set a payment date to be at least 20 days after the date of the notice. The person

shall pay the estimated regulatory cost charge for geothermal wells by the payment date. (Eff. 09/30/2010, Register195)

**Authority:** AS 41.06.005

AS 41.06.040

AS 41.06.055

AS 41.06.035

AS 41.06.050

- 20 AAC 25.730. Commission's determination of regulatory cost charges for geothermal wells. (a) After the later of the beginning of a fiscal year or the date of enactment of an appropriation for the operating costs of the commission for that fiscal year, the commission will provide to persons subject to a regulatory cost charge under AS 41.06.055 written notice of the proposed regulatory cost charges for geothermal wells to be imposed on persons subject to regulatory cost charges for that fiscal year and the basis for the charges, in accordance with 20 AAC 25.720.
- (b) No later than 30 days after notice is issued under (a) of this section, a person subject to a regulatory cost charge for geothermal wells may submit comments on, or request a revision to, the regulatory cost charges imposed for geothermal wells by the commission. A request for a revision must be accompanied by an explanation of the basis for the requested revision, and evidence in support of the request. Before a hearing is held under (c) of this section, the commission will provide all persons subject to a regulatory cost charge for geothermal wells with copies of comments and requests for revision received by the commission or with notice of the persons' right to inspect those comments and requests for revision.
- (c) No later than 60 days after notice is issued under (a) of this section, the commission will hold a public hearing in accordance with 20 AAC 25.540 on the proposed regulatory cost charges for geothermal wells.
- (d) No later than 90 days after notice is issued under (a) of this section, the commission will issue an order determining the regulatory cost charges for geothermal wells to be paid and the dates by which the charges must be paid. The commission will provide written notice to each person subject to a regulatory cost charge of the person's regulatory cost charge for geothermal wells and payment dates.
- (e) The commission will not determine or adjust previously determined regulatory cost charges based on fluid volume reports that are filed or amended, or on other fluid volume corrections that are made, after the deadline under (b) of this section for responding to the commission's notice of proposed regulatory cost charges, except if the commission finds that
  - (1) a person has grossly under-reported the person's Vgop, as defined in 20 AAC 25.720(a);
  - (2) under-reporting as described in (1) of this subsection caused or will cause others' regulatory cost charges for geothermal wells to be materially excessive; and
- (3) correcting the excessive regulatory cost charges for geothermal wells is in the public interest. (Eff. 09/30/2010, Register195)

**Authority:** 

AS 41.06.005

AS 41.06.040

AS 41.06.055

AS 41.06.035

AS 41.06.050

20 AAC 25.735. Payment dates for regulatory cost charges for geothermal wells. (a) If the commission orders payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during the second, third,

### Register 195, October 2010

### MISCELLANEOUS BOARD

and fourth quarters of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge under 20 AAC 25.725 shall pay one-third of the difference between the person's regulatory cost charge for geothermal wells and any estimated regulatory cost charge previously paid for the fiscal year, except that a regulatory cost charge for geothermal wells may be prepaid, in part or in whole, at any time.

- (b) If the commission does not order payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during each quarter or each third of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge under 20 AAC 25.750 shall pay one-fourth, if four payment dates are established, or one-third, if three payment dates are established, of the person's regulatory cost charge, except that a regulatory cost charge for geothermal wells may be prepaid, in part or in whole, at any time.
- (c) The commission will set the first payment date in a fiscal year to be at least 20 days after the date the commission provides notice under 20 AAC 25.730(d). (Eff. 09/30/2010, Register195)

Authority:

AS 41.06.005

AS 41.06.040

AS 41.06.055

AS 41.06.035

AS 41.06.050

- 20 AAC 25.740. Supplemental appropriations. For regulatory cost charges for geothermal wells based on a supplemental appropriation for a fiscal year,
- (1)the commission will determine regulatory cost charges using the commission's determinations of geothermal resources and well operatorship previously made in connection with the regular appropriation for the fiscal year;
- (2) in applying the formula set out in 20 AAC 25.720(a), the commission will set the variable "Lg" equal to zero;
- (3) the commission will use the procedures set out in 20 AAC 25.730, except that the period
  - (A) for submitting comments or requesting a revision under 20 AAC 25.730(b) is 10 days instead of 30 days;
  - (B) within which a public hearing will be held under 20 AAC 25.730(c) is 20 days instead of 60 days; the commission will provide notice of that hearing at least 10 days before the date of that hearing; the 30-day notice requirement under 20 AAC 25.540 does not apply to a hearing held under this paragraph; and
  - (C) within which the commission will issue an order determining regulatory cost charges under 20 AAC 25.730(d) is 30 days instead of 90 days;
  - (4) 20 AAC 25.735 does not apply; and
- (5) the commission will set the payment date for regulatory cost charges to be at least 10 days after the date the commission provides notice under 20 AAC 25.730(d). (Eff. 09/30/2010, Register195)

**Authority:** 

AS 41.06.005

AS 41.06.040

AS 41.06.055

AS 41.06.035

AS 41.06.050

### 20 AAC 25.990(73) is amended to read:

- (73) "well"
  - (A) means a hole penetrating the earth, usually cased with steel pipe, and
  - (i) from which oil or gas, or both, <u>or geothermal resources</u>, is obtained or obtainable; or
  - (ii) that is made for the purpose of finding or obtaining oil, gas or geothermal resources, or of supporting oil, gas, or geothermal resources production; and
- (B) includes a well with multiple well branches drilled to different bottom-hole locations. (Eff. 11/7/99, Register 152; am 1/5/2006), (Eff. 09/30/2010, Register 195)

Authority:

AS 31.05.030

AS 41.06.035

AS 41.06.040

AS 41.06.005

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### Colombie, Jody J (DOA)

From: Sent: Colombie, Jody J (DOA)

Tuesday, August 31, 2010 3:42 PM

To:

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Grenier, Gary Orr; Jason Bergerson; Jerome Eggemeyer; Joe Longo; Marc Kuck; Mary Aschoff; Maurizio Grandi; Ostrovsky, Larry Z (DNR); Richard Garrard; Sandra Lemke; Talib Syed; Tiffany

Stebbins; Wayne Wooster; Willem Vollenbrock; William Van Dyke; Woolf, Wendy C (DNR); David Johnson; Joseph Flack

Subject: Attachments: Post Hearing Notice and Final Geothermal Resources Regulation AOGCC Final Geothermal Resources Regulations AOGCC.pdf; Post Hearing Notice.pdf

Jody J. Colombie Special Assistant Alaska Oil and Gas Conservation Commission 333 West 7th Avenue, Suite 100 Anchorage, AK 99501 (907)793-1221 (phone) (907)276-7542 (fax)

### Colombie, Jody J (DOA)

From:

Clark, Scott M (GOV)

Sent:

Tuesday, August 31, 2010 1:43 PM

To:

Pearson, Robert L (DOA)

Subject:

Regulations Filed: Title 20 - JU2010201538 - Oil and Gas Conservation Commission - Geothermal

Resource Drilling

**Attachments:** 

20-2010201538.pdf

On 8/31/2010, Lieutenant Governor Craig E. Campbell filed regulations (JU2010201538) from the Alaska Oil and Gas Conservation Commission re: Geothermal Resource Drilling (20 AAC 25.700 - 990).

The effective date of the regulations is 9/30/2010, and the regulations will be published in Register 195, October 2010.

The filing certification and regulation text are attached.

Thank you,

Scott Clark
Special Assistant
Office of Lieutenant Governor Craig E. Campbell

240 Main Street, Room 301 Juneau, Alaska 99801 PHONE: 907.465.4081 FAX: 907.465.5400

scott.clark@alaska.gov ltgov.alaska.gov Craig E. Campbell Lieutenant Governor State Capitol Juneau, Alaska 99811 907.465.3520 465.5400 Fax WWW.LTGOV.ALASKA.GOV



530 West 7<sup>th</sup> Ave, Suite 1700 Anchorage, Alaska 99501 907.269.7460 269.0263 LT.GOVERNOR@ALASKA.GOV

## OFFICE OF THE LIEUTENANT GOVERNOR ALASKA

### MEMORANDUM

TO:

Robert Pearson, AAC Contact

Department of Administration

FROM:

Scott Clark

Special Assistant

907.465.4081

DATE:

August 31, 2010

RE:

Filed Permanent Regulations: Alaska Oil and Gas Conservation Commission

Geothermal Resource Drilling: 20 AAC 25.700 - 990

Attorney General File:

JU2010201538

Regulation Filed:

8/31/2010

Effective Date:

9/30/2010

Print:

195, October 2010

cc with enclosures:

Linda Miller, Department of Law

Jim Pound, Administrative Regulation Review Committee

Judy Herndon, LexisNexis

Jody Colombie, Department of Administration

### ORDER CERTIFYING THE CHANGES TO REGULATIONS OF ALASKA OIL AND GAS CONSERVATION **COMMISSION**

The attached 8 pages of regulations, dealing with geothermal resource drilling under 20 AAC 25, is certified to be a correct copy of the regulation changes that the Alaska Oil and Gas Conservation Commission adopted at its July 14, 2010 meeting, under the authority of AS 31.05.30, AS 41.06.005, AS 41.06.035 and AS 31.06.040 and in compliance with the Administrative Procedure Act (AS 44.62), including the notice provisions (AS 44.62.190 and AS 44.62.200) and opportunity for public comment provision (AS 44.62.210).

This action is not expected to require an increased appropriation.

On the record, in considering public comments, the Alaska Oil and Gas Conservation Commission paid special attention to the cost to private persons of the regulatory action being taken.

As provided in AS 44.62.180, the subject regulation changes take effect on the 30th day after they are filed by the lieutenant governor.

DATE:

July 27, 2010 Anchorage

, Scott Clark for

FILING CERTIFICATION

I, Craig E. Campbell, Lieutenant Governor for the State of Alaska, certify that on

August 31, 2010 at 1:01  $\rho$  .m., I filed the attached regulations according to the provisions of AS 44.62.040 – 44.62.120.

Lieutenant Governor Craig E. Campbell

Effective:

<u>September 30, 2010</u> 195, October 2010

Register:

### FOR DELEGATION OF THE LIEUTENANT GOVERNOR'S AUTHORITY

I, CRAIG E. CAMPBELL, LIEUTENANT GOVERNOR OF THE STATE OF ALASKA, designate the following state employee to perform the Administrative Procedures Act filing functions of the Office of the Lieutenant Governor:

SCOTT CLARK, Special Assistant

IN TESTIMONY WHEREOF, I have signed and affixed the Seal of the State of Alaska, at Juneau, on February 23, 2010.

OF THE STATE OF ALAS A

CRAIG E. CAMPBÉLL LIEUTENANT GOVERNOR

20 AAC 25 is amended by adding new sections to Article 7 to read: Article 7.

Geothermal Resources.

Publisher:

Please renumber

ex187119 Section

Article

7.

705. Authority of commission

Definitins as

710. Applicability of regulations

Articles.

715. Variances

- 720. Calculation of regulatory cost charges for geothermal wells
- 725. Estimated regulatory cost charges for geothermal wells
- 730. Commission's determination of regulatory cost charges for geothermal wells
- 735. Payment dates for regulatory cost charges for geothermal wells
- 740. Supplemental appropriations

990. Definitions

20 AAC 25.705. Authority of commission. All wells drilled in search of or in support of the recovery or production of geothermal resources shall comply with the regulations contained in 20AAC 25. 705 - 20AAC 25.740. (Eff. 9/392050 Register) this Article 7.

Authority: AS41. 06.005 AS 41.06.035 AS 41.06.040

20 AAC 25.710. Applicability of regulations. Unless otherwise specified in this article, all the regulations contained elsewhere in this chapter shall apply to wells drilled in search of or in support of the recovery or production of geothermal resources. (Eff. 9 30/2000 Rogister 195)

A UTHORITY: A S 41. 06.00 = As 41.06.035 A S 41.06.040

Register 195, October 2010

#### MISCELLANEOUS BOARDS

20AAC 25.705-25.74 D

20 AAC 25.715. Variances. Upon request of the operator for any action under this article that has application to a single well or geothermal system, the commission may approve a variance from the commission's regulations, if (a) the approval provides at least an equally effective means of accomplishing the requirement set out in the commission's regulation; or

operation than compliance with requirements of the regulation. (E-f-f. 9/3/2010 > 195)

Authority: AS 41.06.005 AS 41.06.035 AS 41.06.040

20 AAC 25.720. Calculation of regulatory cost charges for geothermal wells. (a) The formula for determining a person's regulatory cost charge under AS 41.06.055 is

$$RCCg = Vgop/Vgtot *(Ag - Lg)$$

where

RCCg = the regulatory cost charge for geothermal wells;

Vgop = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, wells for which a Permit to Drill has been issued under AS 41.06.050, of which the person is the operator on the first day of the fiscal year, and that have not before that day been plugged and abandoned and reported as abandoned in accordance with this chapter;

Vgtot = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, all wells for which a Permit to Drill has been issued under AS 41.06.050 and that have not before the first day of the fiscal year been plugged and abandoned and reported as abandoned in accordance with this chapter;

Ag = the appropriation, other than from federal receipts, made for the operating costs related A 541.06 to activities under Title 41 Chapter 06 of the Alaska Statutes of the commission for the fiscal year;

Lg = the lapsed amount of a previous appropriation that is appropriated for the fiscal year under AS 41.06.055(d).

- (b) For purposes of calculating regulatory cost charges, volumes of geothermal resources produced from or injected into wells consist of the applicable volumes reported to the commission under 20 AAC 25.230(b) and 20 AAC 25.432, except that
  - (1) if an operator has failed to report a volume as required, if two or more reported volumes are inconsistent, or if the commission determines that a reported volume is otherwise unreliable, the commission will, in its difference calculate or estimate volumes as it considers appropriate;
  - (2) the commission will, in its discretion, add the volume of a substantial spill or other release of geothermal resources that is not included in a report under 20 AAC 25.230(b) or 20 AAC 25.432.
- (c) For purposes of determining volumes under AS 41.06.055(b) and this chapter, 9,000 cubic feet of gaseous geothermal resources has a volume that is the equivalent of one barrel of liquid geothermal resources.
- (d) For purposes of AS 41.06.055(a) and this chapter, a well is considered plugged and abandoned and reported as abandoned in accordance with this chapter if the well has been abandoned in accordance with 20 AAC 25.105 and 20 AAC 25.112 and a complete well record for the well, including a description of plugging operations, on a Well Completion or

Recompletion Report and Log (Form 10-407) as required by 20 AAC 25.070(3) has been filed with the commission after abandonment. (Eff. 9/30/2010, Register 195)

Authority: As 41.06.005

As 41.06.055

As 41.06.050

determining regulatory cost charges for a fiscal year under 20 AAC 25.730 the commission will, in its discretion, establish estimated regulatory cost charges to be paid during the first quarter of the fiscal year. The amount of an estimated regulatory cost charge is one-fourth of the commission's reasonable estimate, based on information then available, of what the person's total regulatory cost charge will be for that fiscal year.

(b) The commission will provide a person subject to an estimated regulatory cost charge Sorges thermal wells) with written notice of the amount of the charge and the payment date. The commission will set a payment date to at least 20 days after the date of the notice. The person shall pay the estimated regulatory cost charge by the payment date.

As 41.06.035

As 41.06.035

As 41.06.050

wells. (a) After the later of the beginning of a fiscal year or the date of enactment of an appropriation for the operating costs of the commission for that fiscal year, the commission will provide to persons subject to a regulatory cost charge under AS 41.06.055 written notice of the proposed regulatory cost charges to be imposed on persons subject to regulatory cost charges for that fiscal year and the basis for the charges, in accordance with 20 AAC 25.720.

(b) Within 30 days after notice is issued under (a) of this section, a person subject to a regulatory cost charge may submit comments on, or request a revision to, the regulatory cost charges imposed for geothermal wells by the commission. A request for a revision must be

accompanied by an explanation of the basis for the requested revision, and evidence in support of the request. Before a hearing is held under (c) of this section, the commission will provide all persons subject to a regulatory cost charge with copies of comments and requests for revision received by the commission or with notice of the persons' right to inspect those comments and requests for revision.

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- (c) Within 60 days after notice is issued under (a) of this section, the commission will hold a public hearing in accordance with 20 AAC 25.540 on the proposed regulatory cost
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  (d) Within 90 days after notice is issued under (a) of this section, the commission will issue an order determining the regulatory cost charges to be paid and the dates by which the charges must be paid. The commission will provide written notice to each person subject to a regulatory cost charge of the person's regulatory cost charge and payment dates.
- (e) The commission will not determine or adjust previously determined regulatory cost charges based on fluid volume reports that are filed or amended, or on other fluid volume corrections that are made, after the deadline under (b) of this section for responding to the commission's notice of proposed regulatory cost charges, except if the commission finds that
  - (1) a person has grossly under-reported the person's Vgop, as defined in 20 AAC 25.720(a);
  - (2) under-reporting as described in (1) of this subsection caused or will cause others' regulatory cost charges to be materially excessive; and

    (3) correcting the excessive regulatory cost charges is in the public interest.

(Eff. 9/30/2010, Register 195) AUTHORITY: AS 41.06.005 AS 41.06.040 AS 41.06.055 AS 41.06.035 AS 41.06.050

20 AAC 25.735. Payment dates for regulatory cost charges for geothermal wells. (a) If the commission orders payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during the second, third, and fourth quarters of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-third of the difference between the person's regulatory cost charge and any estimated regulatory cost charge previously paid for the fiscal year, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.

- (b) If the commission does not order payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during each quarter or each third of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-fourth, if four payment dates are established, or one-third, if three payment dates are established, of the person's regulatory cost charge, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.
- (c) The commission will set the first payment date in a fiscal year to be at least 20 days

  after the date the commission provides notice under 20 AAC 25.730(d). (2ff. 9,39200Register 190)

  AUTHORITY: A S 41.06.005 A S 41.06.040 A S 41.06.055

  A S 41.06.035 A S 41.06.050

  The commission will determine regulatory cost charges based wells on a supplemental appropriation for a fiscal year, (a) the commission will determine regulatory cost charges using the commission's determinations of geothermal resources and well operatorship previously made in connection with the regular appropriation for the fiscal year;

variable "Lg" equal to zero.

(2) the commission will use the procedures set out in 20 AAC 25.730, except that the period

(A)

for submitting comments or requesting a revision under 20 AAC 25.730(b) is 10 days instead of 30 days;

within which a public hearing will be held under 20 AAC 25.730(c) is 20 days instead of 60 days; the commission will provide notice of that hearing at least 10 days before the date of that hearing; the 30-day notice requirement under 20 AAC 25.540 does not apply to a hearing held under this paragraph; and

within which the commission will issue an order determining regulatory cost charges under 20 AAC 25.730(d) is 30 days instead of 90 days;

(4) At 20 AAC 25.735 does not apply; and

the commission will set the payment date for regulatory cost charges to be at least 10 days after the date the commission provides notice under 20 AAC 25.730(d). (Eff. 9/30/2019) Register 195)

Authority: AS 41.06.005 AS 41.06.035

AS 41.06.035

AS 41.06.050

AS 41.06.04F

20 AAC 25.990. Definitions.

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(73) "well"

(A) means a hole penetrating the earth, usually cased with steel pipe, and

- (i) from which oil or gas, or both, or geothermal resources, is obtained or obtainable; or
- (ii) that is made for the purpose of finding or obtaining oil, gas or geothermal resources, or of supporting oil, gas or geothermal resources production; and

(b) includes a well with multiple well branches drilled to different bottom-hole locations) (Eff. 11/7/99, Register 152; am 1/5/2006, Register 177; 9/30/2010, Register 195)

**Authority:** AS 31.05.30

A541.06.005

AS 41.06.035

AS 41.06.040

### **MEMORANDUM**

## State of Alaska

Department of Law

To: Daniel T. Seamount, Chairman

Oil and Gas Conservation Commission

Dept. of Administration

Date: August 26, 2010

File No.: JU2010201538

Tel. No.: 465-3600

From: Deborah E. Behr

Chief Assistant Attorney General and Regulations Attorney

Legislation and Regulations Section

Re: 20 AAC 25.700 - .990: Alaska

Oil and Gas Conservation Commission Regulations re: Geothermal Resource Drilling

Under AS 44.62.060, we have reviewed the Alaska Oil and Gas Conservation Commission adoption, amendment, and repeal of the regulations and approve the changes for filing by the lieutenant governor. A duplicate original of this memorandum is being furnished the lieutenant governor, along with the 8 pages of regulations and the related documents.

You might wish to contact the lieutenant governor's office to confirm the filing date and effective date of the attached regulation changes.

The May 28, 2010 public notice and the July 27, 2010 certification order both state that this action is not expected to require an increased appropriation. Therefore, a fiscal note under AS 44.62.195 is not required.

In accordance with AS 44.62.125(b)(6), some corrections have been made in the regulations, as shown on the attached copy.

DEB:pav

cc w/enc.:

Robert Pearson, Regulations Contact Dept. of Administration

Jody Colombie, Special Assistant Alaska Oil and Gas Conservation Commission Dept. of Administration

Tina Kobayashi, Supervising Attorney Oil, Gas and Mining Section

## **MEMORANDUM**

# State of Alaska

Department of Law

To: Hon. Craig E. Campbell

Lt. Governor

August 26, 2010

File No.: JU2010201538

Tel. No.: 465-3600

ebou & Beh From: Deborah E. Behr

> Chief Assistant Attorney General and Regulations Attorney

Legislation and Regulations Section

Re: 20 AAC 25.700 - .990: Alaska Oil

and Gas Conservation Commission

Regulations re: Geothermal

Resource Drilling

We have reviewed the attached Alaska Oil and Gas Conservation Commission regulations. A duplicate of this memorandum is being furnished to Daniel T. Seamount, Chair, along with a copy of the regulations.

The Department of Law has reviewed the attached regulations against the statutory standards of the Administrative Procedure Act. Based upon our review, we find no legal problems. This memorandum and the attached duplicate memorandum dated August 26, 2010 constitute the written statement of approval under AS 44.62.060(b) and (c) that authorizes your office to file the attached regulations.

The regulation changes were adopted by the Alaska Oil and Gas Conservation Commission after the close of the public comment period. The regulations concern geothermal resource drilling.

The certification order for the regulations states that this action is not expected to require an increased appropriation. Therefore, a fiscal note under AS 44.62.195 is not required.

We have made technical corrections to conform the regulations with the drafting manual under AS 44.62.060 and 44.62.125. The corrections are shown on the attached copy of the regulations.

DEB:pav

cc:

Daniel T. Seamount, Chairman

Oil and Gas Conservation Commission

Dept. of Administration

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	Authority of commission
	Applicability of regulations
•	Variances
720.	Calculation of regulatory cost charges for geothermal wells
725.	Estimated regulatory cost charges for geothermal wells
730.	Commission's determination of regulatory cost charges for geothermal wells
735.	Payment dates for regulatory cost charges for geothermal wells
740.	Supplemental appropriations
990.	_Definitions
990.	

As 41.06.035 AS 41.06.040

regulations contained elsewhere in this chapter shall apply to wells drilled in search of or in

support of the recovery or production of geothermal resources. (Eff. //,

AUTHORITY: AS 41. 06.08 \$

Register \_\_\_\_\_, \_\_\_\_\_0

### MISCELLANEOUS BORDS

20 AAC 25.715. Variances. Upon request of the operator for any action under this article that has application to a single well or geothermal system, the commission may approve a variance from the commission's regulations, if (a) the approval provides at least an equally effective means of accomplishing the requirement set out in the commission's regulation; or

operation than compliance with requirements of the regulation. (Eff. // )

Authority: A5 41.06.005 A541.06.035 A541.06.040

20 AAC 25.720. Calculation of regulatory cost charges for geothermal wells. (a) The formula for determining a person's regulatory cost charge under AS 41.06.055 is

$$RCCg = Vgop/Vgtot *(Ag - Lg)$$

where

RCCg = the regulatory cost charge for geothermal wells;

Vgop = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, wells for which a Permit to Drill has been issued under AS 41.06.050, of which the person is the operator on the first day of the fiscal year, and that have not before that day been plugged and abandoned and reported as abandoned in accordance with this chapter;

Vgtot = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, all wells for which a Permit to Drill has been issued under AS 41.06.050 and that have not before the first day of the fiscal year been plugged and abandoned and reported as abandoned in accordance with this chapter;

Ag = the appropriation, other than from federal receipts, made for the operating costs related

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to activities under Title 41 Chapter 06 of the Alaska-Statutes of the commission for the fiscal year;

Lg = the lapsed amount of a previous appropriation that is appropriated for the fiscal year under AS 41.06.055(d).

- (b) For purposes of calculating regulatory cost charges, volumes of geothermal resources produced from or injected into wells consist of the applicable volumes reported to the commission under 20 AAC 25.230(b) and 20 AAC 25.432, except that
  - (1) if an operator has failed to report a volume as required, if two or more reported volumes are inconsistent, or if the commission determines that a reported volume is otherwise unreliable, the commission will, in its discretion calculate or estimate volumes as it considers appropriate;
  - (2) the commission will, in its discretion, add the volume of a substantial spill or other release of geothermal resources that is not included in a report under 20 AAC 25.230(b) or 20 AAC 25.432.
- (c) For purposes of determining volumes under AS 41.06.055(b) and this chapter 9,000 cubic feet of gaseous geothermal resources has a volume that is the equivalent of one barrel of liquid geothermal resources.
- (d) For purposes of AS 41.06.055(a) and this chapter, a well is considered plugged and abandoned and reported as abandoned in accordance with this chapter if the well has been abandoned in accordance with 20 AAC 25.105 and 20 AAC 25.112 and a complete well record for the well, including a description of plugging operations, on a Well Completion or

Register

MISCELLANEOUS B

Recompletion Report and Log (Form 10-407) as required by 20 AAC 25.070(3) has been filed with the commission after abandonment. (Eff.

AUTHORITY: AS41.06,005

AS41. 06.035

AS 41. 06. 050

20 AAC 25.725. Estimated regulatory cost charges for geothermal wells. (a) Before determining regulatory cost charges for a fiscal year under 20 AAC 25.730 the commission will. in its discretion, establish estimated regulatory cost charges to be paid during the first quarter of the fiscal year. The amount of an estimated regulatory cost charge is one-fourth of the commission's reasonable estimate, based on information then available, of what the person's total regulatory cost charge will be for that fiscal year.

(b) The commission will provide a person subject to an estimated regulatory cost charge with written notice of the amount of the charge and the payment date. The commission will set a payment date to at least 20 days after the date of the notice. The person shall pay the estimated regulatory cost charge by the payment date.

Authority: AS 41.06.005

As 41.06.005

AUTHORITY : AS 41.06.005

AS 41.06,55

AS 41.06.035

A541.06.050

20 AAC 25.730. Commission's determination of regulatory cost charges for geothermal wells. (a) After the later of the beginning of a fiscal year or the date of enactment of an appropriation for the operating costs of the commission for that fiscal year, the commission will provide to persons subject to a regulatory cost charge under AS 41.06.055 written notice of the proposed regulatory cost charges to be imposed on persons subject to regulatory cost charges for that fiscal year and the basis for the charges, in accordance with 20 AAC 25.720.

(No later than) (b) Within 30 days after notice is issued under (a) of this section, a person subject to a regulatory cost charge may submit comments on, or request a revision to, the regulatory cost charges imposed for geothermal wells by the commission. A request for a revision must be

accompanied by an explanation of the basis for the requested revision, and evidence in support of the request. Before a hearing is held under (c) of this section, the commission will provide all persons subject to a regulatory cost charge with copies of comments and requests for revision received by the commission or with notice of the persons' right to inspect those comments and requests for revision.

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- (c) Within 60 days after notice is issued under (a) of this section, the commission will hold a public hearing in accordance with 20 AAC 25.540 on the proposed regulatory cost charges.
- (d) Within 90 days after notice is issued under (a) of this section, the commission will issue an order determining the regulatory cost charges to be paid and the dates by which the charges must be paid. The commission will provide written notice to each person subject to a regulatory cost charge of the person's regulatory cost charge and payment dates.
- (e) The commission will not determine or adjust previously determined regulatory cost charges based on fluid volume reports that are filed or amended, or on other fluid volume corrections that are made, after the deadline under (b) of this section for responding to the commission's notice of proposed regulatory cost charges, except if the commission finds that
  - (1) a person has grossly under-reported the person's Vgop, as defined in 20 AAC 25.720(a);
  - (2) under-reporting as described in (1) of this subsection caused or will cause others' regulatory cost charges to be materially excessive; and

(3) correcting the excessive regulatory cost charges is in the public interest.

Eff. 11 , Register

AUTHORITY: AS 41.06.005 AS 41.06.040 AS 41.06.055 AS 41.06.035 AS 41.06.050 20 AAC 25.735. Payment dates for regulatory cost charges for geothermal wells. (a) If the commission orders payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during the second, third, and fourth quarters of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-third of the difference between the person's regulatory cost charge and any estimated regulatory cost charge previously paid for the fiscal year, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.

- (b) If the commission does not order payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during each quarter or each third of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-fourth, if four payment dates are established, or one-third, if three payment dates are established, of the person's regulatory cost charge, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.
- (c) The commission will set the first payment date in a fiscal year to be at least 20 days

  after the date the commission provides notice under 20 AAC 25.730(d). (2ff. //, Register)

  AUTHORITY: A S 41.06.005 A S 41.06.040 A S 41.06.055

  A S 41.06.035 A S 41.06.050

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  20 AAC 25.740. Supplemental appropriations. In the case of regulatory cost charges based wells

on a supplemental appropriation for a fiscal year, (a) the commission will determine regulatory cost charges using the commission's determinations of geothermal resources and well operatorship previously made in connection with the regular appropriation for the fiscal year;

variable "Lg" equal to zero.

the commission will use the procedures set out in 20 AAC 25.730, except that the period

for submitting comments or requesting a revision under 20 AAC 25.730(b) is 10 days instead of 30 days;

within which a public hearing will be held under 20 AAC 25.730(c) is 20 days instead of 60 days; the commission will provide notice of that hearing at least 10 days before the date of that hearing; the 30-day notice requirement under 20 AAC 25.540 does not apply to a hearing held under this paragraph; and

within which the commission will issue an order determining regulatory cost charges under 20 AAC 25.730(d) is 30 days instead of 90 days;

(d) 20 AAC 25.735 does not apply; and

the commission will set the payment date for regulatory cost charges to be at least 10 days after the date the commission provides notice under 20 AAC 25.730(d). (Eff. \_\_/\_\_\_\_, Register \_\_\_\_)

Authority: AS 41.06.005 AS 41.06.035 AS 41.06.045

AS 41.06.050

AS 41.06.050

20 AAC 25.990 is amended to read:

20 AAC 25.990. Definitions.

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AS 41.06.035

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**Authority:** AS 31.05.30

AS41.06.005

	o AAC 25 is amended by adding new sectoricle 7 to read. Article 7.	nons to			
blishe	Geothermal Resources.				
Please Enumber	ection				
Ticle	25. Authority of commission				
ANTINAS ES	0. Applicability of regulations				
DEB 715. Variances					
	0. Calculation of regulatory cost charges for geothermal wells				
	5. Estimated regulatory cost charges for geothermal wells				
	0. Commission's determination of regulatory cost charges for geothermal wells				
	5. Payment dates for regulatory cost charges for geothermal wells				
	0. Supplemental appropriations				
	10. Definitions				

20 AAC 25.705. Authority of commission. All wells drilled in search of or in support of the recovery or production of geothermal resources shall comply with the regulations contained in 20AAC25.705-20AAC25.700. (Eff. 11) this Actiele 7. AUTHORITY: AS41.06.005 AS 41.06.035 AS 41.06.040 20 AAC 25.710. Applicability of regulations. Unless otherwise specified in this article, alt 20 AAC 25. 740 regulations contained elsewhere in this chapter shall apply to wells drilled in search of or in support of the recovery or production of geothermal resources. (Eff. // ) AS 41.06.035 AS 41.06.040 AUTHORITY: A S 41. 06.00 \$

Register , 2010

### MISCELLANEOUS BOARDS

20 AAC 25.715. Variances. Upon request of the operator for any action under this article that has application to a single well or geothermal system, the commission may approve a variance from the commission's regulations, if (a) the approval provides at least an equally effective means of accomplishing the requirement set out in the commission's regulation; or

operation than compliance with requirements of the regulation. (Eff. // )

Authority: As 41.06.005 As 41.06.035 As 41.06.040

20 AAC 25.720. Calculation of regulatory cost charges for geothermal wells. (a) The formula for determining a person's regulatory cost charge under AS 41.06.055 is

$$RCCg = Vgop/Vgtot *(Ag - Lg)$$

where

RCCg = the regulatory cost charge for geothermal wells;

Vgop = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, wells for which a Permit to Drill has been issued under AS 41.06.050, of which the person is the operator on the first day of the fiscal year, and that have not before that day been plugged and abandoned and reported as abandoned in accordance with this chapter;

Vgtot = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, all wells for which a Permit to Drill has been issued under AS 41.06.050 and that have not before the first day of the fiscal year been plugged and abandoned and reported as abandoned in accordance with this chapter;



Ag = the appropriation, other than from federal receipts, made for the operating costs related  $A \le 41$ .  $C \le 100$  to activities under Title 41 Chapter 06 of the Alaska Statutes of the commission for the fiscal year;

Lg = the lapsed amount of a previous appropriation that is appropriated for the fiscal year under AS 41.06.055(d).

- (b) For purposes of calculating regulatory cost charges, volumes of geothermal resources produced from or injected into wells consist of the applicable volumes reported to the commission under 20 AAC 25.230(b) and 20 AAC 25.432, except that
  - (1) if an operator has failed to report a volume as required, if two or more reported volumes are inconsistent, or if the commission determines that a reported volume is otherwise unreliable, the commission will. in its discretion? calculate or estimate volumes as it considers appropriate:
  - (2) the commission will, in its discretion, add the volume of a substantial spill or other release of geothermal resources that is not included in a report under 20 AAC 25.230(b) or 20 AAC 25.432.
- (c) For purposes of determining volumes under AS 41.06.055(b) and this chapter, 9,000 cubic feet of gaseous geothermal resources has a volume that is the equivalent of one barrel of liquid geothermal resources.
- (d) For purposes of AS 41.06.055(a) and this ehapter, a well is considered plugged and abandoned and reported as abandoned in accordance with this chapter if the well has been abandoned in accordance with 20 AAC 25.105 and 20 AAC 25.112 and a complete well record for the well, including a description of plugging operations, on a Well Completion or

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Recompletion Report and Log (Form 10-407) as required by 20 AAC 25.070(3) has been filed with the commission after abandonment. ( $\mathcal{E}+\mathcal{F}$ , //  $\mathcal{E}+\mathcal{F}$ )

Authority: As 41.06.05

As 41.06.050

As 41.06.050

determining regulatory cost charges for a fiscal year under 20 AAC 25.730 the commission will in its discretion, establish estimated regulatory cost charges to be paid during the first quarter of the fiscal year. The amount of an estimated regulatory cost charge is one-fourth of the commission's reasonable estimate, based on information then available, of what the person's total regulatory cost charge will be for that fiscal year.

(b) The commission will provide a person subject to an estimated regulatory cost charge for aco thermal wells with written notice of the amount of the charge and the payment date. The commission will set a payment date to at least 20 days after the date of the notice. The person shall pay the estimated regulatory cost charge by the payment date.

Authorizing: As 41.06.005

As 41.06.005

As 41.06.005

As 41.06.005

wells. (a) After the later of the beginning of a fiscal year or the date of enactment of an appropriation for the operating costs of the commission for that fiscal year, the commission will provide to persons subject to a regulatory cost charge under AS 41.06.055 written notice of the proposed regulatory cost charges to be imposed on persons subject to regulatory cost charges for that fiscal year and the basis for the charges, in accordance with 20 AAC 25.720.

(b) Within 30 days after notice is issued under (a) of this section, a person subject to a regulatory cost charge may submit comments on, or request a revision to, the regulatory cost charges imposed for geothermal wells by the commission. A request for a revision must be

### MISCELLANEOUS BOARDS

accompanied by an explanation of the basis for the requested revision, and evidence in support of the request. Before a hearing is held under (c) of this section, the commission will provide all persons subject to a regulatory cost charge with copies of comments and requests for revision received by the commission or with notice of the persons' right to inspect those comments and requests for revision.

No later

- (c) Within 60 days after notice is issued under (a) of this section, the commission will hold a public hearing in accordance with 20 AAC 25.540 on the proposed regulatory cost charges.
- (d) Within 90 days after notice is issued under (a) of this section, the commission will issue an order determining the regulatory cost charges to be paid and the dates by which the charges must be paid. The commission will provide written notice to each person subject to a regulatory cost charge of the person's regulatory cost charge and payment dates.
- (e) The commission will not determine or adjust previously determined regulatory cost charges based on fluid volume reports that are filed or amended, or on other fluid volume corrections that are made, after the deadline under (b) of this section for responding to the commission's notice of proposed regulatory cost charges, except if the commission finds that
  - (1) a person has grossly under-reported the person's Vgop, as defined in 20 AAC 25.720(a);
  - (2) under-reporting as described in (1) of this subsection caused or will cause others' regulatory cost charges to be materially excessive; and

(3) correcting the excessive regulatory cost charges is in the public interest.

(8-4. 1 / , Register )
AUTHORITY: AS 41.06.005 AS 41.06.055
AS 41.06.056
AS 41.06.056

#### MISCELLANEOUS BOARDS

20 AAC 25.735. Payment dates for regulatory cost charges for geothermal wells. (a) If the commission orders payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during the second, third, and fourth quarters of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-third of the difference between the person's regulatory cost charge and any estimated regulatory cost charge previously paid for the fiscal year, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.

- (b) If the commission does not order payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during each quarter or each third of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-fourth, if four payment dates are established, or one-third, if three payment dates are established, of the person's regulatory cost charge, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.
- (c) The commission will set the first payment date in a fiscal year to be at least 20 days after the date the commission provides notice under 20 AAC 25.730(d). (244. 11, Register) AUTHOLITY: A > 41.06.005 A > 41.06.040 A > 41.06.055 A > 41.06.050

20 AAC 25.740. Supplemental appropriations, in the case of regulatory cost charges based wells on a supplemental appropriation for a fiscal year, (a) the commission will determine regulatory cost charges using the commission's determinations of geothermal resources and well operatorship previously made in connection with the regular appropriation for the fiscal year:

variable "Lg" equal to zero.

(3) (c) the commission will use the procedures set out in 20 AAC 25.730, except that the period

If for submitting comments or requesting a revision under 20 AAC 25.730(b) is 10 days instead of 30 days;

within which a public hearing will be held under 20 AAC 25.730(c) is 20 days instead of 60 days; the commission will provide notice of that hearing at least 10 days before the date of that hearing; the 30-day notice requirement under 20 AAC 25.540 does not apply to a hearing held under this paragraph; and

(43) within which the commission will issue an order determining regulatory cost charges under 20 AAC 25.730(d) is 30 days instead of 90 days;

(4) 20 AAC 25.735 does not apply; and

The the commission will set the payment date for regulatory cost charges to be at least 10 days after the date the commission provides notice under 20 AAC 25.730(d). (Eff. // / Register )

Authority: AS 41.06.005 AS 41.06.035

AS 41.06.035

AS 41.06.050

AS 41.06.045

20 AAC 25.990. Definitions.

(73) "well"

(A)
(a) means a hole penetrating the earth, usually cased with steel pipe, and

- (i) from which oil or gas, or both, or geothermal resources, is obtained or obtainable; or
- (ii) that is made for the purpose of finding or obtaining oil, gas or geothermal resources, or of supporting oil, gas or geothermal resources production; and

(b) includes a well with multiple well branches drilled to different bottom-hole locations/ (Eff. 11/7/99, Register 152; am 1/5/2006, Register 177; \_/\_\_\_, Register

**Authority:** AS 31.05,30

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AS41.06.005

AS 41.06.035

AS 41. 06.040

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# **MEMORANDUM**

# STATE OF ALASKA

## ALASKA OIL AND GAS CONSERVATION COMMISSION

TO:

Regulations Attorney

Legislation/Regulations Section

Department of Law

DATE:

July 12, 2010

SUBJECT:

AG File No. JU2010201538

Request for Legal Review of Regulations Project on Geothermal Resource Drilling

20 AAC 25.700-990

FROM:

John K. Norman, Commission

Department of Administration

Alaska Oil and Gas Conservation Commission

We are requesting approval of the attached final regulations on the Geothermal Resource Drilling. The Commission adopted these changes on June 14, 2010.

Enclosed are the following documents:

- 1. original and one copy of the final regulations;
- 2. original signed and dated certification order;
- 3. original public notices;
- 4. original additional regulations notice information form distributed with the notice;
- 5. original publisher's affidavit's of publication;
- 6. original affidavit of notice;
- 7. original affidavit of oral hearing;
- 8. original affidavit of commission action;
- 9. excerpt from unapproved minutes from the May 5, 2010 meeting;

We worked with Assistant Attorney General Thomas Ballantine on this project.

Upon completing your review, please forward the regulations to the lieutenant governor for filing. In accordance with AS 44.62.180, the regulation changes will take effect on the 30<sup>th</sup> day after filing.

# ORDER CERTIFYING THE CHANGES TO REGULATIONS OF ALASKA OIL AND GAS CONSERVATION COMMISSION

The attached 8 pages of regulations, dealing with geothermal resource drilling under 20 AAC 25, is certified to be a correct copy of the regulation changes that the Alaska Oil and Gas Conservation Commission adopted at its July 14, 2010 meeting, under the authority of AS 31.05.30, AS 41.06.005, AS 41.06.035 and AS 31.06.040 and in compliance with the Administrative Procedure Act (AS 44.62), including the notice provisions (AS 44.62.190 and AS 44.62.200) and opportunity for public comment provision (AS 44.62.210).

This action is not expected to require an increased appropriation.

On the record, in considering public comments, the Alaska Oil and Gas Conservation Commission paid special attention to the cost to private persons of the regulatory action being taken.

As provided in AS 44.62.180, the subject regulation changes take effect on the 30th day after they are filed by the lieutenant governor.

DATE:

July 27, 2010
Anchorage

John K. Norman
Commissioner

#### FILING CERTIFICATION

I, Craig E. Cam	pbell, Lieutenant Governo	r for the State of Alaska, certify that on
	, 2010 at	m., I filed the attached regulations according to the
provisions of A	S 44.62.040 – 44.62.120.	
		Lieutenant Governor
Effective:	·	
Register:		

### ORDER CERTIFYING THE CHANGES TO REGULATIONS OF ALASKA OIL AND GAS CONSERVATION COMMISSION

The attached 4 pages of regulations, dealing with geothermal resource drilling under 20 AAC 25, is certified to be a correct copy of the regulation changes that the Alaska Oil and Gas Conservation Commission adopted at its July 14, 2010 meeting, under the authority of AS 31.05.30, AS 41.06.005, AS 41.06.035 and AS 31.06.040 and in compliance with the Administrative Procedure Act (AS 44.62), including the notice provisions (AS 44.62.190 and AS 44.62.200) and opportunity for public comment provision (AS 44.62.210).

This action is not expected to require an increased appropriation,

On the record, in considering public comments, the Alaska Vil and Gas Conservation

Commission paid special attention to the cost to private persons of the regulatory action being taken. As provided in AS 44.62.180, the subject regulation changes take effect on the 30th day after they are filed by the lieutenant governor. July 14, 2010 DATE: Anchorage Commissioner FILING CERTIFICATION I, Craig E. Campbell, Lieutenant Governor for the State of Alaska, certify that on ', 2010 at \_\_\_\_\_ .m., I filed the attached regulations according to the provisions of AS 44.62.040 – 44.62.120. Lieutenant Governor Effective: Register:

#### Article 7

#### **Geothermal Resources**

#### Section

705. Authority of commission

710. Applicability of regulations

715. Variances

720. Calculation of regulatory cost charges for geothermal wells

725. Estimated regulatory cost charges for geothermal wells

730. Commission's determination of regulatory cost charges for geothermal wells

735. Payment dates for regulatory cost charges for geothermal wells

740. Supplemental appropriations

990. Definitions

20 AAC 25.705. Authority of commission. All wells drilled in search of or in support of the recovery or production of geothermal resources shall comply with the regulations contained in this Article 7.

20 AAC 25.710. Applicability of regulations. Unless otherwise specified in this article, all regulations contained elsewhere in this chapter shall apply to wells drilled in search of or in support of the recovery or production of geothermal resources.

20 AAC 25.715. Variances. Upon request of the operator for any action under this article that has application to a single well or geothermal system, the commission may approve a variance from the commission's regulations, if (a) the approval provides at least an equally effective means of accomplishing the requirement set out in the commission's regulation; or

(b) the commission determines that the request is more appropriate to the proposed operation than compliance with requirements of the regulation.

20 AAC 25.720. Calculation of regulatory cost charges for geothermal wells. (a) The formula for determining a person's regulatory cost charge under AS 41.06.055 is

$$RCCg = Vgop/Vgtot *(Ag - Lg)$$

where

RCCg = the regulatory cost charge for geothermal wells;

Vgop = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, wells for which a Permit to Drill has been issued under AS 41.06.050, of which the person is the operator on the first day of the fiscal year, and that have not before that day been plugged and abandoned and reported as abandoned in accordance with this chapter;

Vgtot = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, all wells for which a Permit to Drill has been issued under AS 41.06.050 and that have not before the first day of the fiscal year been plugged and abandoned and reported as abandoned in accordance with this chapter;

Ag = the appropriation, other than from federal receipts, made for the operating costs related to activities under Title 41 Chapter 06 of the Alaska Statutes of the commission for the fiscal year:

Lg = the lapsed amount of a previous appropriation that is appropriated for the fiscal year under AS 41.06.055(d).

- (b) For purposes of calculating regulatory cost charges, volumes of geothermal resources produced from or injected into wells consist of the applicable volumes reported to the commission under 20 AAC 25.230(b) and 20 AAC 25.432, except that
  - (1) if an operator has failed to report a volume as required, if two or more reported volumes are inconsistent, or if the commission determines that a reported volume is otherwise unreliable, the commission will, in its discretion, calculate or estimate volumes as it considers appropriate;
  - (2) the commission will, in its discretion, add the volume of a substantial spill or other release of geothermal resources that is not included in a report under 20 AAC 25.230(b) or 20 AAC 25.432.
- (c) For purposes of determining volumes under AS 41.06.055(b) and this chapter 9,000 cubic feet of gaseous geothermal resources has a volume that is the equivalent of one barrel of liquid geothermal resources.
- (d) For purposes of AS 41.06.055(a) and this chapter, a well is considered plugged and abandoned and reported as abandoned in accordance with this chapter if the well has been abandoned in accordance with 20 AAC 25.105 and 20 AAC 25.112 and a complete well record for the well, including a description of plugging operations, on a Well Completion or Recompletion Report and Log (Form 10-407) as required by 20 AAC 25.070(3) has been filed with the commission after abandonment.
- 20 AAC 25.725. Estimated regulatory cost charges for geothermal wells. (a) Before determining regulatory cost charges for a fiscal year under 20 AAC 25.730 the commission will, in its discretion, establish estimated regulatory cost charges to be paid during the first quarter of the fiscal year. The amount of an estimated regulatory cost charge is one-fourth of the commission's reasonable estimate, based on information then available, of what the person's total regulatory cost charge will be for that fiscal year.
- (b) The commission will provide a person subject to an estimated regulatory cost charge with written notice of the amount of the charge and the payment date. The commission will set a payment date to at least 20 days after the date of the notice. The person shall pay the estimated regulatory cost charge by the payment date.
- 20 AAC 25.730. Commission's determination of regulatory cost charges for geothermal wells. (a) After the later of the beginning of a fiscal year or the date of enactment of an appropriation for the operating costs of the commission for that fiscal year, the commission will provide to persons subject to a regulatory cost charge under AS 41.06.055 written notice of the proposed regulatory cost charges to be imposed on persons subject to regulatory cost charges for that fiscal year and the basis for the charges, in accordance with 20 AAC 25.720.
- (b) Within 30 days after notice is issued under (a) of this section, a person subject to a regulatory cost charge may submit comments on, or request a revision to, the regulatory cost charges imposed for geothermal wells by the commission. A request for a revision must be accompanied by an explanation of the basis for the requested revision, and evidence in support of

the request. Before a hearing is held under (c) of this section, the commission will provide all persons subject to a regulatory cost charge with copies of comments and requests for revision received by the commission or with notice of the persons' right to inspect those comments and requests for revision.

- (c) Within 60 days after notice is issued under (a) of this section, the commission will hold a public hearing in accordance with 20 AAC 25.540 on the proposed regulatory cost charges.
- (d) Within 90 days after notice is issued under (a) of this section, the commission will issue an order determining the regulatory cost charges to be paid and the dates by which the charges must be paid. The commission will provide written notice to each person subject to a regulatory cost charge of the person's regulatory cost charge and payment dates.
- (e) The commission will not determine or adjust previously determined regulatory cost charges based on fluid volume reports that are filed or amended, or on other fluid volume corrections that are made, after the deadline under (b) of this section for responding to the commission's notice of proposed regulatory cost charges, except if the commission finds that
  - (1) a person has grossly under-reported the person's Vgop, as defined in 20 AAC 25.720(a);
  - (2) under-reporting as described in (1) of this subsection caused or will cause others' regulatory cost charges to be materially excessive; and
    - (3) correcting the excessive regulatory cost charges is in the public interest.
- 20 AAC 25.735. Payment dates for regulatory cost charges for geothermal wells. (a) If the commission orders payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during the second, third, and fourth quarters of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-third of the difference between the person's regulatory cost charge and any estimated regulatory cost charge previously paid for the fiscal year, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.
- (b) If the commission does not order payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during each quarter or each third of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-fourth, if four payment dates are established, or one-third, if three payment dates are established, of the person's regulatory cost charge, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.
- (c) The commission will set the first payment date in a fiscal year to be at least 20 days after the date the commission provides notice under 20 AAC 25.730(d).
- 20 AAC 25.740. Supplemental appropriations. In the case of regulatory cost charges based on a supplemental appropriation for a fiscal year, (a) the commission will determine regulatory cost charges using the commission's determinations of geothermal resources and well operatorship previously made in connection with the regular appropriation for the fiscal year;
- (b) in applying the formula set out in 20 AAC 25.720(a), the commission will set the variable "Lg" equal to zero;
- (c) the commission will use the procedures set out in 20 AAC 25.730, except that the period



Register,	,2010	MISCELLAN	NEOUS BOARDS
instead before not app charge (d) 20 (e) the	s instead of 30 days (2) within which a l of 60 days; the co the date of that hea ply to a hearing helo (3) within which t s under 20 AAC 25 AAC 25.735 does n commission will so	public hearing will be helommission will provide noring; the 30-day notice real under this paragraph; and he commission will issue .730(d) is 30 days instead not apply; and et the payment date for re	an order determining regulatory cost
Authority:	AS 41.06.005	AS 41.06.035	AS 41.06.040
20 AAC 25.99	90 is amended to rea	ad:	
<b>20 AAC 25.</b> (73) "	990. Definitions.		
(,2)	(a) means a hole r	penetrating the earth, usua hich oil or gas, or both, or	ally cased with steel pipe, and regeothermal resources, is obtained or
	(ii) that is a	made for the purpose of fices, or of supporting oil, §	nding or obtaining oil, gas or gas or geothermal resources
location	(b) includes a wel	ll with multiple well brand Register 152; am 1/5/2006	ches drilled to different bottom-hole, Register 177;/, Register

**Authority:** AS 31.05.30

#### Article 7

#### **Geothermal Resources**

#### Section

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- (c) For purposes of determining volumes under AS 41.06.055(b) and this chapter 9,000 cubic feet of gaseous geothermal resources has a volume that is the equivalent of one barrel of liquid geothermal resources.
- (d) For purposes of AS 41.06.055(a) and this chapter, a well is considered plugged and abandoned and reported as abandoned in accordance with this chapter if the well has been abandoned in accordance with 20 AAC 25.105 and 20 AAC 25.112 and a complete well record for the well, including a description of plugging operations, on a Well Completion or Recompletion Report and Log (Form 10-407) as required by 20 AAC 25.070(3) has been filed with the commission after abandonment.
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- (b) The commission will provide a person subject to an estimated regulatory cost charge with written notice of the amount of the charge and the payment date. The commission will set a payment date to at least 20 days after the date of the notice. The person shall pay the estimated regulatory cost charge by the payment date.
- 20 AAC 25.730. Commission's determination of regulatory cost charges for geothermal wells. (a) After the later of the beginning of a fiscal year or the date of enactment of an appropriation for the operating costs of the commission for that fiscal year, the commission will provide to persons subject to a regulatory cost charge under AS 41.06.055 written notice of the proposed regulatory cost charges to be imposed on persons subject to regulatory cost charges for that fiscal year and the basis for the charges, in accordance with 20 AAC 25.720.
- (b) Within 30 days after notice is issued under (a) of this section, a person subject to a regulatory cost charge may submit comments on, or request a revision to, the regulatory cost charges imposed for geothermal wells by the commission. A request for a revision must be accompanied by an explanation of the basis for the requested revision, and evidence in support of

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- (c) Within 60 days after notice is issued under (a) of this section, the commission will hold a public hearing in accordance with 20 AAC 25.540 on the proposed regulatory cost charges.
- (d) Within 90 days after notice is issued under (a) of this section, the commission will issue an order determining the regulatory cost charges to be paid and the dates by which the charges must be paid. The commission will provide written notice to each person subject to a regulatory cost charge of the person's regulatory cost charge and payment dates.
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- (b) in applying the formula set out in 20 AAC 25.720(a), the commission will set the variable "Lg" equal to zero;
- (c) the commission will use the procedures set out in 20 AAC 25.730, except that the period

ead of 30 days; within which a pure of days; the comate of that hearing a hearing held u within which the er 20 AAC 25.735 does not mission will set to the end of the control of the cont	ablic hearing will be amission will providing; the 30-day notice ander this paragraph; commission will is 30(d) is 30 days instant apply; and the payment date for	sue an order determining regulatory cost
41.06.005	AS 41.06.035	AS 41.06.040
amended to read:	:	
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**Authority:** AS 31.05.30

#### STATE OF ALASKA NOTICE OF PROPOSED CHANGES IN THE REGULATIONS OF THE ALASKA OIL AND GAS CONSERVATION COMMISSION

The Alaska Oil and Gas Conservation Commission proposes to adopt regulation changes to Title 20, Chapter 25 of the Alaska Administrative Code by renumbering current Article 7 as new Article 8, and adding a new Article 7 to deal with geothermal resource drilling and production. The new regulations proposed to be adopted by the Alaska Oil and Gas Conservation Commission include the following:

- (1) 20 AAC 25.705 includes geothermal wells in the commission's regulatory iurisdiction;
- (2) 20 AAC 25.710 extends the existing oil and gas well regulations, where applicable, to geothermal wells;
- (3) 20 AAC 25.715 allows Commission to grant regulatory variances and waivers, where appropriate;
- (4) 20 AAC 25.720, 725, 730, 735, 740 and 745 establishes calculation method for geothermal resource regulatory cost charge, and;
- (5) 20 AAC 25.990(73) adds geothermal wells to the commission's definition of well.

You may comment on the proposed regulation changes, including the potential costs to private persons of complying with the proposed regulations, by submitting written comments to the Alaska Oil and Gas Conservation Commission at 333 West 7th Avenue, Suite 100, Anchorage, Alaska 99501. The comments must be received no later than 4:30 p.m. on June 28, 2010.

Oral or written comments also may be submitted at a hearing to be held at 9:00 a.m. on June 29, 2010, at 333 West 7<sup>th</sup> Avenue, Suite 100, Anchorage, Alaska 99501. The hearing may continue beyond 12:00 p.m. to allow comment by those present before 9:30 a.m. The public comment period will close at the end of the June 29, 2010 hearing.

If you are a person with a disability who needs a special accommodation in order to participate in this process, please contact the Commission's Special Assistant Jody Colombie at (907) 793-1221 no later than June 23, 2010 to ensure that any necessary accommodations can be provided.

For a copy of the proposed regulation changes, contact Jody Colombie at 333 West 7<sup>th</sup> Avenue, Suite 100, Anchorage, Alaska 99501, (907) 793-1221, or go to www.aogcc.alaska.gov.

After the public comment period ends, the Alaska Oil and Gas Conservation Commission will either adopt these or other provisions addressing the same subject, without further notice, or decide to take no action on them. The language of the final regulations may be different from YOU SHOULD COMMENT DURING THE TIME that of the proposed regulations. ALLOWED IF YOUR INTERESTS COULD BE AFFECTED.

**Statutory Authority:** AS 41.06.005, AS 41.06.035, AS 41.06.040.

Statutes Being Implemented, Interpreted, or Made Specific: AS 41.06.005, AS 41.06.035, AS 41.06.040.

Fiscal Information: The proposed regulation changes are not expected to require an increased

appropriation.

DATE: 5/28/10

Daniel T. Seamount, Jr., Chair

# ADDITIONAL REGULATIONS NOTICE INFORMATION (AS 44.62.190(d))

- 1. Adopting agency: Alaska Oil and Gas Conservation Commission.
- 2. General subject of regulations: Geothermal resources drilling and production.
- 3. Citation of regulations: 20 AAC 25.705, 20 AAC 25.710, 20 AAC 25.715, 20 AAC 25.720, AAC 25.725, 20 AAC 25.730, 20 AAC 25.735, 20 AAC 25.740, 20 AAC 25.745 and 20 AAC 25.990(73)
- 4. Reason for the proposed action: legislative action transferring geothermal regulatory authority to the Alaska Oil and Gas Conservation Commission.
- 5. Program category and BRU affected: Alaska Oil and Gas Conservation Commission.
- 6. Cost of implementation to the state agency: Annual cost is \$30,000 (2% of current inspection program cost).
- 7. The name of the contact person for the regulations:

Name: Winton Aubert

Title: Senior Reservoir Engineer

Address: 333 W. 7th Avenue, Suite 100, Anchorage, AK 99501

Telephone: (907) 793-1221

E-mail: winton.aubert@alaska.gov

8. The origin of the proposed action: agency staff.

9. Date: May 28, 2010

10. Prepared by: Jody J. Colombi

Alaska Oil and Gas Conservation Commission

(907) 793-1221

JUN 2:

Alaska Oil & Gas Com.

Ancherou AFFIDAVIT OF PUBLICATION

STATE OF ALASKA THIRD JUDICIAL DISTRICT

STOF0330

#776326 \$415.00

Shane Drew being first duly sworn on oath deposes and says that he/she is a representative of the Anchorage Daily News, a daily newspaper. That said newspaper has been approved by the Third Judicial Court, Anchorage, Alaska, and it now and has been published in the English language continually as a daily newspaper in Anchorage, Alaska, and it is now and during all said time was printed in an office maintained at the aforesaid place of publication of said newspaper. That the annexed is a copy of an advertisement as it was published in regular issues (and not in supplemental form) of said newspaper on

May 29, 2010

and that such newspaper was regularly distributed to its subscribers during all of said period. That the full amount of the fee charged for the foregoing publication is not in excess of the rate charged private individuals.

Signed Sham Drew

Subscribed and sworn to before

me this 22 day of

Notary Public in and for The State of Alaska. Third Division Anchorage, Alaska MY COMMISSION EXPIRES



rutory Authority: AS 41,06,005, AS 41.06,035

General subject of regulations: Geothermal sources drilling and production.

ogram category and BRU affected. Alaska Oil Gas Conservation Commission.

Cost of implementation to the state agency inual cost is \$30,000 (2% of current inspection

The name of the contact person for the

stions: Name: Winton Aubert Title: Serior Reservoir Engineer Address: 333 W. 7th Avenue, Suite 100, Anchorage, AK 99501 Telephone: (907) 793-1221 E-mail: Winton aubert@alaska.gov

The origin of the proposed action: agency staff.

9 Date: May 28, 2010

Prepared by: Jody J. Colombie Alaska Oil and Gas Conservation Commission (907) 793-1221

STATE OF ALASKA	)
	) ss.
THIRD JUDICIAL DISTRICT	)

# AFFIDAVIT OF NOTICE OF PROPOSED ADOPTION OF REGULATIONS AND FURNISHING OF ADDITIONAL INFORMATION

I, Jody J. Colombie, Special Assistant to the Alaska Oil and Gas Conservation Commission, being sworn, state the following:

As required by AS 44.62.190, notice of the proposed adoption of changes to 20 AAC 25.700-990, dealing with Geothermal Resource Drilling, was given by being

- (1) published in a newspaper or trade publication;
- (2) furnished to interested persons as shown on the attached list;
- (3) furnished to appropriate state officials;
- (4) furnished to the Department of Law, along with a copy of the proposed regulations;
- (5) electronically transmitted to incumbent State of Alaska legislators;
- (6) furnished to the Legislative Affairs Agency, Legislative Library;
- (7) posted on the Alaska Online Public Notice System, as required by AS 44.62.175(a)(1) and (b) and AS 44.62.190(a)(1);
- (8) furnished electronically, along with a copy of the proposed regulations, to the Legislative Affairs Agency, the chairs of the Senate Resources Committee and House Special Committee of Oil and Gas, the Administrative Regulation Review Committee, and the Legislative Council.

As required by AS 44.62.190(d), additional regulations notice information regarding the proposed adoption of the regulation changes described above was furnished to interested persons as shown on the attached list and those in (5) and (6) of the list above. The additional regulations notice information was posted on the Alaska Online Public Notice System.

DATE:	July 14, 2010	
_	Anchorage	

Jody J. Colombie

Special Assistant to the Commission

SUBSCRIBED AND SWORN TO before me this 14th day of July 2010.

Notary Public in and for the

State of Alaska

My commission expires: 11/11/2010

### Colombie, Jody J (DOA)

From: Sent: To: Colombie, Jody J (DOA) Friday, May 28, 2010 12:00 PM

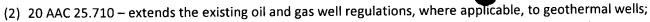
resregs@legis.state.ak.us; (foms2@mtaonline.net); (michael.j.nelson@conocophillips.com); (Von.L.Hutchins@conocophillips.com); Alan Dennis; alaska@petrocalc.com; Anna Raff; Barbara F Fullmer; bbritch; Becky Bohrer; Bill Walker; Bowen Roberts; Brad McKim; Brady, Jerry L; Brandon Gagnon; Brandow, Cande (ASRC Energy Services); Brian Gillespie; Brian Havelock; Bruce Webb; carol smyth; caunderwood; Charles O'Donnell; Chris Gay; Cliff Posey; Crandall, Krissell; Dan Bross; dapa, Daryl J. Kleppin; David Boelens; David House; David Steingreaber; ddonkel@cfl.rr.com; Deborah J. Jones; Delbridge, Rena E (LAA); doug\_schultze; Elowe, Kristin; Evan Harness; eyancy; Francis S. Sommer; Fred Steece; Garland Robinson; Gary Laughlin; Gary Rogers; Gary Schultz; ghammons; Gordon Pospisil; Gorney, David L.; Gregg Nady; gspfoff; Harry Engel; Jdarlington (jarlington@gmail.com); Jeff Jones; Jeffery B. Jones (jeff.jones@alaska.gov); Jerry McCutcheon; Jim White; Jim Winegarner; Joe Nicks; John Garing; John Katz (john.katz@alaska.gov); John S. Haworth; John Spain; John Tower; Jon Goltz; Joseph Darrigo; Judy Stanek; Julie Houle; Kari Moriarty; Kaynell Zeman; Keith Wiles; Larry Ostrovsky; Laura Silliphant; Marilyn Crockett; Mark Dalton; Mark Hanley (mark.hanley@anadarko.com); Mark Kovac, Mark P. Worcester, Marquerite kremer, Michael Dammeyer; Michael Jacobs; Mike Bill; Mike Mason; Mikel Schultz; Mindy Lewis; MJ Loveland; minelson; mkm7200; nelson; Nick W. Glover; NSK Problem Well Supv; Patty Alfaro; Paul Decker (paul.decker@alaska.gov); PORHOLA, STAN T; Rader, Matthew W (DNR); Raj Nanvaan; Randall Kanady, Randy L. Skillern; rob.g.dragnich@exxonmobil.com; Robert A. Province (raprovince@marathonoil.com); Robert Campbell; Roberts, Susan M.; Rudy Brueggeman; Scott Cranswick; Scott, David (LAA); Shannon Donnelly; Sharmaine Copeland; Shellenbaum, Diane P (DNR); Slemons, Jonne D (DNR); Sondra Stewman; Steve Lambert; Steve Moothart; Steven R. Rossberg; Suzanne Gibson; tablerk; Tamera Sheffield; Taylor, Cammy O (DNR); Temple Davidson; Teresa Imm; Terrie Hubble; Thor Cutler; Tina Grovier; Todd Durkee; Tony Hopfinger; trmjr1; Walter Featherly; Williamson, Mary J (DNR); Winslow, Paul M; Aaron Gluzman; Bettis, Patricia K (DNR); Dale Hoffman; Frédéric Grenier; Gary Orr; Jason Bergerson; Jerome Eggemeyer; Joe Longo; Lamont Frazer, Marc Kuck, Mary Aschoff, Maurizio Grandi, Ostrovsky, Larry Z (DNR), Richard Garrard, Sandra Lemke: Scott Nash; Talib Syed; Tiffany Stebbins; Wayne Wooster; Willem Vollenbrock; William Van Dyke; Woolf, Wendy C (DNR); Aubert, Winton G (DOA); Ballantine, Tab A (LAW); Brooks, Phoebe, Davies, Stephen F (DOA); Fisher, Samantha J (DOA); Foerster, Catherine P (DOA); Johnson, Elaine M (DOA); Laasch, Linda K (DOA); Mahnken, Christine R (DOA); Maunder, Thomas E (DOA); McIver, Bren (DOA); McMains, Stephen E (DOA); Norman, John K (DOA); Okland, Howard D (DOA); Paladijczuk, Tracie L (DOA); Pasqual, Maria (DOA); Regg, James B (DOA); Roby, David S (DOA); Saltmarsh, Arthur C (DOA); Scheve, Charles M (DOA); Schwartz, Guy L (DOA); Seamount, Dan T (DOA); Austerman, Alan; Buch, Bob (LAA); Bunde, Con (LAA); Cathy Munoz (Representative\_Cathy\_Engstrom\_Munoz@legis.state.ak.us); Chenault, Mike (LAA); Cissna, Sharon (LAA); Coghill, John (LAA); Crawford, Harry (LAA); Dahlstrom, Nancy (LAA); Davis, Bettye J (LAA); Doogan, Mike (LAA); Dyson, Fred (LAA); Edgmon, Bryce E (LAA); Egan, Dennis W (LAA); Ellis, Johnny (LAA); Fairclough, Anna (LAA); Foster, Richard; French, Hollis (LAA); Gara, Les (LAA); Gardner, Berta (LAA); Gatto, Carl (LAA); Gruenberg, Max F (LAA); Guttenberg, David (LAA); Harris, John (LAA); Hawker, Mike (LAA); Herron, Bob; Hoffman, Lyman F (LAA); Holmes, Lindsey (LAA); Huggins, Charlie (LAA); Johansen, Kyle B (LAA); Johnson, Craig W (LAA); Joule, Reggie (LAA); Kawasaki, Scott Jw (LAA); Keller, Wes (LAA); Kelly, Mike (LAA); Kerttula, Beth (LAA); Kevin Meyer; Kookesh, Albert (LAA); Lynn, Bob (LAA); McGuire, Lesil L (LAA); Menard, Linda K, Millett, Charisse; Neuman, Mark A (LAA); Olson, Donny (LAA); Olson, Kurt E (LAA); Paskvan, Joe; Petersen, Pete; Ramras, Jay B (LAA); Salmon, Woodie W (LAA); Seaton, Paul (LAA); Stedman, Bert K (LAA); Stevens, Gary L (LAA); Stoltze, Bill (LAA); Tammie Wilson; Thomas, Bill (LAA); Thomas, Joe (LAA); Tuck, Chris; Wagoner, Tom (LAA); Wielechowski, Bill (LAA); Wilson, Peggy A (LAA) **AOGCC Proposed Geothermal Regulations** 

Subject: Attachments:

Public Notice, Additional Info, Proposed Geothermal Regulations.pdf

The Alaska Oil and Gas Conservation Commission proposes to adopt regulation changes to Title 20, Chapter 25 of the Alaska Administrative Code by renumbering current Article 7 as new Article 8, and adding a new Article 7 to deal with geothermal resource drilling and production. The new regulations proposed to be adopted by the Alaska Oil and Gas Conservation Commission include the following:

(1) 20 AAC 25.705 - includes geothermal wells in the commission's regulatory jurisdiction;



(3) 20 AAC 25.715 - allows Commission to grant regulatory variances and waivers, where appropriate;

(4) 20 AAC 25.720, 725, 730, 735, 740 and 745 - establishes calculation method for geothermal resource regulatory cost charge, and;

(5) 20 AAC 25.990(73) – adds geothermal wells to the commission's definition of well.

Jody J. Colombie Special Assistant Alaska Oil and Gas Conservation Commission 333 West 7th Avenue, Suite 100 Anchorage, AK 99501 (907)793-1221 (phone) (907)276-7542 (fax)

### Colombie, Jody J (DOA)

From:

Colombie, Jody J (DOA)

Sent:

Friday, May 28, 2010 3:07 PM

To: Subject: Foster, Neal W (LAA)

**AOGCC Proposed Geothermal Regulations** 

Attachments:

Public Notice, Additional Info, Proposed Geothermal Regulations.pdf

The Alaska Oil and Gas Conservation Commission proposes to adopt regulation changes to Title 20, Chapter 25 of the Alaska Administrative Code by renumbering current Article 7 as new Article 8, and adding a new Article 7 to deal with geothermal resource drilling and production. The new regulations proposed to be adopted by the Alaska Oil and Gas Conservation Commission include the following:

- (1) 20 AAC 25.705 includes geothermal wells in the commission's regulatory jurisdiction;
- (2) 20 AAC 25.710 extends the existing oil and gas well regulations, where applicable, to geothermal wells;
- (3) 20 AAC 25.715 allows Commission to grant regulatory variances and waivers, where appropriate;
- (4) 20 AAC 25.720, 725, 730, 735, 740 and 745 establishes calculation method for geothermal resource regulatory cost charge, and;
- (5) 20 AAC 25.990(73) adds geothermal wells to the commission's definition of well.

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James Gibbs PO Box 1597 Soldotna, AK 99669

Cliff Burglin 319 Charles Street Fairbanks, AK 99701

North Slope Borough PO Box 69 Barrow, AK 99723

Mailed 5/28/10

# SERVICE LIST FOR PROPOSED REGULATIONS FOR GEOTHERMAL RESOURCES DRILLING AND PRODUCTION

On May 28, 2010, I mailed to the following individuals the public notice of proposed amendments to 20 AAC 25.705, 20 AAC 25.710, 20 AAC 25.715, 20 AAC 25.720, AAC 25.725, 20 AAC 25.730, 20 AAC 25.735, 20 AAC 25.740, 20 AAC 25.745 and 20 AAC 25.990(73), additional regulations notice information, and proposed regulations:

Annette Kreitzer Commissioner Department of Administration PO Box 110200 Juneau, AK 99811

Debra Behr Chief Assistant Attorney General Legislation and Regulations Section Department of Law PO Box 110300 Juneau, AK 99811

# Colombie, Jody J (DOA)

From:

Colombie, Jody J (DOA)

Sent:

Wednesday, June 02, 2010 8:45 AM

To:

David Johnson; Joseph Flack; Tiffany Stebbins

Subject:

**Proposed Geothermal Regulations** 

Attachments:

Public Notice, Additional Info, Proposed Geothermal Regulations.pdf

Jody J. Colombie Special Assistant Alaska Oil and Gas Conservation Commission 333 West 7th Avenue, Suite 100 Anchorage, AK 99501 (907)793-1221 (phone) (907)276-7542 (fax)

STATE OF ALASKA	)
	) ss.
THIRD JUDICIAL DISTRICT	)

### AFFIDAVIT OF ORAL HEARING

I, Jody J. Colombie, Special Assistant to the Alaska Oil and Gas Conservation Commission, being sworn, state the following:

On June 29, 2010, at 9:00 a.m., at 333 West 7<sup>th</sup> Avenue, Suite 100, Anchorage, Alaska, a public hearing presided over by Daniel T. Seamount, Jr., Commissioner, Chair of the Alaska Oil and Gas Conservation Commission, was held in accordance with AS 44.62.210 for the purpose of taking testimony in connection with the adoption of changes to 20 AAC 25.700-990, dealing with Geothermal Resource Drilling.

DATE: July 14, 2010
Anchorage, Alaska

Special Assistant to the Commission

SUBSCRIBED AND SWORN TO before me this 14th day of July, 2010.

Notary Public in and for the

State of Alaska

My commission expires: 11/11/2010

STATE OF ALASKA	)
	) ss.
THIRD JUDICIAL DISTRICT	)

# AFFIDAVIT OF COMMISSION ACTION

I, Jody J. Colombie, Special Assistant to the Alaska Oil and Gas Conservation Commission, being sworn, state the following:

The attached motion, dealing with geothermal resource drilling regulation changes, was passed by the Alaska Oil and Gas Conservation Commission during its July 14, 2010 meeting.

Date: July 14, 2010
Anchorage

Jody J. Colombie

Special Assistant to the Commission

SUBSCRIBED AND SWORN TO before me this 14th day of July, 2010.

Notary Public in and for the

State of Alaska

My commission expires: 11/11/2010

# ALASKA OIL AND GAS CONSERVATION COMMISSION MEETING July 14, 2010 Unapproved Minutes

Commissioner John K. Norman moved and Commissioner Cathy P. Foerster seconded the following motion:

"I move to adopt the attached amendment to 20 AAC 25.700-990."

The motion carried unanimously.

# ALASKA OIL AND GAS CONSERVATION COMMISSION 1 Daniel T. Seamount, Chairman 2 Before Commissioners: John K. Norman Cathy Foerster 3 In the Matter of Proposed Changes to Title 20, Chapter 25 of the 5 Alaska Administrative Code: Geothermal Resources Drilling and 6 Production 7 ALASKA OIL and GAS CONSERVATION COMMISSION 8 Anchorage, Alaska 9 June 29th, 2010 9:00 o'clock a.m. 10 VOLUME I 11 PUBLIC HEARING 12 Daniel T. Seamount, Chairman BEFORE: John K. Norman, Commissioner 13 Cathy Foerster, Commissioner 14 15 16 17 18 19 20 21 22 23 24 25

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ANCHORAGE, ALASKA 99501

### PROCEEDINGS

(On record - 9:03 a.m.)

CHAIR SEAMOUNT: I'd like to call this hearing to order.

This is a hearing to consider proposed regulations pertaining to geothermal resource drilling and production of the Alaska

Oil and Gas Conservation Commission. Today is June 29th, 2010.

It is 9:03 a.m.

To my left is Commissioner Cathy Foerster. To my right is Commissioner John Norman and I'm Dan Seamount, the Chair. Any persons that have any kind of special -- need for special accommodations will see -- can see the special assistant Jody Colombie sitting in the back.

R & R Court Reporting (sic) will be recording the proceeding. You can obtain a copy of transcript from R & R Court Reporting or you can contact Ms. Colombie and she can lead you in the right direction.

I'd like to remind anybody that's going to testify to speak into both of the microphones so people at the back of the room can hear and so that the Court Reporter can get a clear recording.

The Alaska Oil and Gas Conservation Commission proposed to adopt regulation changes to Title 20, Chapter 25 of the Alaska Administrative Code by renumbering current Article 7 as new Article 8 and adding a new Article 7 to deal with geothermal resource drilling and production.

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The new regulations proposed to be adopted by the AOGCC include the following: number (1), 20 AAC 25.705 it includes geothermal wells in the Commission's regulatory jurisdiction; number (2), 20 AAC 25.710 extends the existing oil and gas well regulations, where applicable, to geothermal wells; number (3), 20 AAC 25.715 allows the Commission to grant regulatory variances and waivers, where appropriate; 20 AAC 25.720, 725, 730, 735, 740 and 745 establishes a calculation method for geothermal resource regulatory cost charge, and finally number (5) 20 AAC 25.990 adds geothermal wells to the Commission's definition of a well.

We received one comment and that was from the Department of Natural Resources Division of -- I believe it was the Division of Oil and Gas.

COMMISSIONER FOERSTER: No, it was --....

CHAIR SEAMOUNT: No, no, it was from --....

COMMISSIONER FOERSTER: ....it was (simultaneous speech)....

CHAIR SEAMOUNT: ....it was from the -- the Commissioner of the Department Natural Resources. We received that late yesterday, that's June 28, 2010.

This hearing is being held in accordance with AS 44.62 and 20 AAC 25.540 of the Alaska Administrative Code. Those are regulations governing public hearings. The hearing will be recorded.

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Okay. I see by the sign-in sheet we have four that are requesting to testify. If anybody has a question of the witness what you do is you provide the question in writing with your name and the name of the witness and give it to Ms. Colombie in the back, our special administrative assistant, and she'll forward those questions up here and we'll consider whether the question is relevant or not and if it is we'll ask the question for you.

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The notice of this hearing was published in the Anchorage Daily News on May 29th, 2010. It's also been posted on the State of Alaska on-line notices website, as well as the AOGCC's own website.

The law, AS 44.62.210(a) required us to consider all factual, substantive and all other relevant matter presented to it before adopting, amending or repealing regulations. And when we are considering the factual, substantive and other relevant matter the agency will pay special attention to the cost to private persons of the proposed regulatory action.

Okay, before we start I'd like to ask, Commissioner Foerster, do you have any comments at this time?

COMMISSIONER FOERSTER: Not at this time.

CHAIR SEAMOUNT: And, Commissioner Norman, do you have any comments?

COMMISSIONER NORMAN: I have none.

CHAIR SEAMOUNT: Thank you. Our practice is to swear

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811 G STREET (907)277-0572/Fax 274-8982 witnesses in and are we to have that practice today?

COMMISSIONER NORMAN: I think that would be advisable. If a witness is uncomfortable swearing in, then that's fine. The regulationS say that will be taken into consideration in weighing the weight to be given to the witness' testimony.

CHAIR SEAMOUNT: Okay. Also if you're going to be speaking on technical matters if you'd like to be considered an expert witness we'll ask you to indicate your qualifications and background and your experience so the Commission can gauge whether you'd fall into the category of an expert witness.

Okay. I think the first person to testify will be Dr. Winton Aubert. He's our senior reservoir engineer and he's going to provide comments for the AOGCC. Dr. Aubert.

DR. AUBERT: Thank you. For the record I'm Winton Aubert senior engineer on the Commission; s Staff.

CHAIR SEAMOUNT: Dr. Aubert, I don't think everyone is familiar with your experience and qualifications, could you please tell us something about 'em?

DR. AUBERT: Yes, I hold terminal degree in Petroleum Engineering from LSU. I have more than 30 years experience in all phases of the petroleum industry. I've authored numerous publications and U. S. Paten registrations and I'm a registered professional Petroleum Engineer in Alaska.

CHAIR SEAMOUNT: Thank you, Dr. Aubert, you may proceed with your....

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811 G STREET (907)277-0572/Fax 274-8982 COMMISSIONER FOERSTER: I have a question, is -- us terminal degree a way of avoiding saying that you have a Ph.D.?

DR. AUBERT: Yes, it is.

COMMISSIONER FOERSTER: Okay.

CHAIR SEAMOUNT: Dr. Aubert is humble.

COMMISSIONER FOERSTER: But I'm not on his behalf.

CHAIR SEAMOUNT: Okay, thank you. Please proceed.

DR. AUBERT: During its most recent session the Alaska
Legislature transfer regulatory authority for geothermal
resource development from the Alaska Department of Natural
Resources to the Alaska Oil and Gas Conservation Commission.
One of the transferring bills caveats is a target date of July
1st, 2010 after which new AOGCC geothermal regulations may take
effect.

Pursuant to the Legislature's action today we proposed amending our current Title 20, Chapter 25 of the Alaska Administrative Code in order to bring the Commission's regulations into applicability to geothermal energy development. As the Chair has summarized we now propose renumbering current Article 7 of the Commission regulations, the definition section, as new Article 8.

In today's proposed Article 7 we establish the Commission's authority over geothermal resource development, then apply by reference existing oil and gas regulations to geothermal wells. We propose explicit flexibility to allow

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regulatory variances and waivers appropriate for geothermal application.

We propose a calculation method for geothermal wells regulatory cost charge, an estimation method for said regulatory cost charge and provide a description of the Commission's cost charge determination method.

We further propose methodology by which the Commission establishes regulatory cost charge payment dates, supplemental appropriations and a regulatory cost charge effective date.

Finally, in new Article 8 we propose to add geothermal wells to the Commission's well definition. These proposed regulatory amendments must be finalized then presented and formally adopted in a public forum.

And one correction, in addition to the comments received by -- from the Alaska Department of Natural Resources, we also received comments from the Legislative Affairs attorney regarding these -- this proposal.

Are there any questions from the panel at this time?

CHAIR SEAMOUNT: Before we go to questions, we have someone on the line, Ms. Amanda Kolker. Are you on the line, Ms. Kolker? I wonder if she got....

DR. KOLKER: Can -- can you hear me?

CHAIR SEAMOUNT: Yes. Yes, and you're able to hear okay?

DR. KOLKER: I -- yeah, it's not the best sound quality.

I guess if the speakers could move slightly closer to the

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microphone it might help, but I can catch most of it. Thank you for asking.

CHAIR SEAMOUNT: Okay. Do those speakers work there?

Okay. We'll have testimony from that. Why don't you move over there, Dr. Aubert.

MS. COLOMBIE: No, Winton, you can stay there. I'll move over.

(Off record comments)

CHAIR SEAMOUNT: Okay. Now we'll have questions and comments. Commissioner Norman.

COMMISSIONER NORMAN: I have a continuing question that I'm just going to raise for the record. I don't know -- Dr. Aubert, I don't really know that you would have an answer, but I'll just raise it for the record. The statute talks in terms of calculating the regulatory cost charge based upon total volume of geothermal resources. The proposed regulation does.

And the statute defines geothermal resources as natural heat of the earth which would be measured according to some metric measuring heat, but I believe that our proposal -- and I'm not arguing with this, I'm just -- I want to flag this on the record so that if we have to revisit it and correct it we can if it does require that.

The metric that we will use for calculating the RCC is fluid volume, but the statute and the regulations talk in terms of geothermal resource which as I said is natural heat of the

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earth, so there's a slight disconnect there. And if we have to revisit that there's several ways to do that because these regulations will not kick into effect, at least this portion of it for some time, but we may need to make those two things consistent either by a slight change to the statute or a regulatory change that would express the Commission's intention to interpret that as meaning fluid. That's all I have.

CHAIR SEAMOUNT: Thank you, Commissioner Norman.

Commissioner Foerster.

COMMISSIONER FOERSTER: Dr. Aubert, when you reference explicit flexibility I think that's something that geothermal industry would be really interested in understanding how that expands, where -- you know, I mean, where it's limited. So could you give a little description of where we're looking at allowing explicit flexibility and where we're not?

DR. AUBERT: Some of the areas include -- in our requirements for blow-out prevention equipment for gas detection equipment and for near surface seismic surveys, those things are generally are not as robust in a geothermal application as they are for oil and gas exploration, so we're prepared to waive, if you will, or vary where appropriate our current oil and gas regulations as we apply them in a geothermal permitting scheme.

COMMISSIONER FOERSTER: But I'm asking assuming that those will be looked at on a case by case basis to determine what

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robustness is required?

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DR. AUBERT: Definitely.

COMMISSIONER FOERSTER: Okay. And how would you treat exploration areas, areas where we don't have any data?

DR. AUBERT: We will -- we'll have to rely on the nearest geologic control that exists for any given area and absent any geologic control then naturally our tendency will be to err on the side of caution and be more conservative with our blow-out prevention and so forth requirements.

COMMISSIONER FOERSTER: Okay. Are there any areas of the proposed regulations where we're specifically disallowing flexibility?

DR. AUBERT: Not for geothermal application.

COMMISSIONER FOERSTER: Okay. That's all I have.

DR. AUBERT: Yeah. And this also allows us, just as an aside, to offer variances in waivers without the requirement for 30 day notice and a Public Hearing.

COMMISSIONER FOERSTER: Okay. So where my head is going with this if an operator has a problem with any of our regulations because it's not applicable to geothermal then this explicit flexibility should address that concern?

DR. AUBERT: That's our aim in establishing that particular clause.

COMMISSIONER FOERSTER: Okay, thank you. That's all I have.

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CHAIR SEAMOUNT: Okay, thank you, Commissioner Foerster.

Okay. I have no questions or comments. Dr. Aubert, thank you very much. Oh, one more, Commissioner Norman.

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COMMISSIONER NORMAN: Again, a comment because the commentary from the Department of Natural Resources was just received yesterday, it is a three page letter. It will be part of the record. If there are any persons present or on the line that have not seen that and want the opportunity to view it, please let us know. The Commission won't go through that. It's fairly straight forward in the commentary, but if you would desire a copy to comment on, please let us know and we'll see that you get it.

CHAIR SEAMOUNT: Yeah, having gone through the comment in a quick manner it looks like there's some pretty significant additions that are recommended. And I don't know if we would want to just go ahead and make a decision on the regulations as proposed today and re-notice the recommendations by the DNR some time later?

COMMISSIONER FOERSTER: That's -- I had discussed that with out Assistant Attorney General before the meeting as to whether that would be an acceptable way to proceed and I had gotten an indication from him that, that would be okay. So I'm wondering if a motion at this time would be appropriate to do that or should we wait and hear what the rest of the folks have to say before (simultaneous speech)....

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could make that decision when we go into the adjudicatory 2 process, is that correct, Mr. AG? 3 4 MR. BALLANTINE: Yes. CHAIR SEAMOUNT: Okay, good. Okay, thank you, Dr. Aubert. 5 Okay. At this -- I misspoke. Before I said there were б four people willing to testify, there are only three and we 7 have two left and it looks like they're both with the City of 8 Akutan, so Mr. Mann and Ms. Kolker, can you still hear me? 9 DR. KOLKER: Yes. Can you hear me? 10 CHAIR SEAMOUNT: Yes. I heard some -- there were some 11 really good things said about you and your geologist by Chris 12 Nye of the Alaska Volcano Observatory when I asked him about 13 the possibility of encountering toxic gases in any of these 14 wells and he put me at ease. 15 Okay. So I guess I can swear you both in at the same time 16 unless you have any objections. 17 DR. KOLKER: No objection. 18 MR. MANN: Fine with me. 19 CHAIR SEAMOUNT: Okay. Please raise your right hand. 20 MR. MANN: Are you doing that, Amanda? 2.1 CHAIR SEAMOUNT: And, Ms. Kolker, -- yeah, and Ms. Kolker, 22 23 I know you're doing that. (Oath Administered) 2.4

CHAIR SEAMOUNT: I think we should wait and, you know, we

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MR. MANN:

I do.

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DR. KOLKER: I do.

CHAIR SEAMOUNT: Thank you. Okay. Now, as far as expert witnesses do either or both of you want to be considered as expert witnesses?

MR. MANN: I do not.

CHAIR SEAMOUNT: Okay.

MR. MANN: Amanda is a geologist, doctorate in Geology.

Amanda, do you want to be an expert witness?

DR. KOLKER: Oh, I don't know, does it, you know, add credence to my testimony?

COMMISSIONER FOERSTER: It does.

CHAIR SEAMOUNT: Okay. It would probably be good for you to be considered as an expert witness, so if you could state name, who you represent, what's the subject or discipline and your qualifications.

# AMANDA KOLKER

called as a witness on behalf of the City of Akutan, testified telephonically as follows:

## DIRECT EXAMINATION

DR. KOLKER: Sure. My name is Amanda Kolker. I represent the City of Akutan. I'm the project manager and geologist for the Akutan geothermal project. My qualifications are I have a Ph.D. in Geology from the University of Alaska - Fairbanks. I worked for many years in Alaska geothermal, most notably at Chena Hot Springs as well as other projects. My dissertation

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work was on geothermal energy in Alaska and I researched, you know, from a geological perspective as well as, sort of, social sustainability.

CHAIR SEAMOUNT: Okay. Commissioner Norman, do you have any objection to us designating Ms. Kolker as an expert witness?

COMMISSIONER NORMAN: No objection.

CHAIR SEAMOUNT: Commissioner Foerster?

COMMISSIONER FOERSTER: None.

CHAIR SEAMOUNT: Okay. Hearing so, Ms. Kolker, you are now officially a designated expert witness in the field of geothermal.

Okay. City of Akutan, you can proceed and when you do, please, state name and then proceed with your testimony.

## RAY MANN

called as a witness on behalf of the City of Akutan, testified telephonically as follows on:

# DIRECT EXAMINATION

MR. MANN: Thank you, Mr. Chairman and Members of the Commission. My name is Ray Mann. I'm president of RMA Consulting Group and we are the program managers for the City of Akutan. And as program managers we're responsible for a number of key projects that are being undertaken there at this time. The construction of an airport, a harbor, a geothermal project, road building and two hydro projects so we've been

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engaged with the village and with the Trident Seafoods

Corporation that has the largest seafood plant in the world

located at Akutan with about 1,000 employees.

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And by the way, as an aside they use seven megawatts of power, so if you're wondering why we might be drilling out there that's one of the incentives, but I would also say and I think Dr. Kolker will emphasize this, that this is a multicomponent geothermal project in which we hope to not only capture power for that large power usage and these new projects that are coming on line, but also applications such as agriculture, greenhouse agriculture, tourists -- tourism applications through PICKA (ph) and other organizations in the Aleutians, so that's, sort of, the backdrop of why this program is being developed and going forward.

Again, as an introduction I would say the community has been working towards this project for decades. It's always, of course, been a resource that's there. There's hot water flowing to the beach in Hot Springs Bay and, of course, folks there live right next to a volcano so this is not a new project, but we've been happy to work with the City since 2008 to help bring it to fruition along with a lot of other people including the State of Alaska.

For my remarks I would like to emphasized several areas or issues that we think are important to the Commission and important in the sense, I think, as we join in a partnership to

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bring geothermal energy to Alaska. These are suggestions on things that we've seen. We're at a little bit different segment than, perhaps, other folks who will testify or that you will come in contact with. We're not in the geothermal industry. You know, we are a community and we are hoping to be part of developing geothermal as a sustainable resource for Alaska.

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So I would ask the following considerations at this time or in the future from the Commission. One, it's important to recognize the public benefits of geothermal exploration and development versus what might be a more traditional corporate economic model. Again, we're not in it for profit. We're not drilling and exploring two make money.

Number two, the stated policies of the Alaska Legislature and successive administrations have supported the immediate development of renewal energy including the vast geothermal resources of Alaska to reduce dependence on fossil fuels and most significantly for villages such as Akutan to promote the sustainability of rural Alaskan communities, lifestyles and cultures. So, again, I would suggest that there's a broader array of issues here that the Commission will, I think, from time to time have to consider and deal with.

Number three, there is a direct investment by the State in this technology and in these projects. This project is being totally funded with public money through a grant from the

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Alaska Energy Authority, rural -- I mean, Renewable Energy Fund that the Legislature has established and by the City of Akutan direct contributions. Therefore, again, I think it's important to recognize that there is a public purpose behind many of these projects.

Now, obviously there will be large commercial projects or what could be construed as commercial projects like Mt. Spur or others, but I would say right now from our work with the Alaska Energy Authority over the last couple years there's probably 20 projects right now that are identified on the books as fundable in terms of exploration and potential development and almost all of these are rurally situated. And right now I think at this surface in Alaska (ph) you have Akutan and you have Manley, you have Pilgrim up in Nome and, of course, Naknek which is, kind of, a little bit different story as a utility.

Here again, unlike corporate development of the oil and gas type, geothermal development will continue to include a large direct investment by the State. And, again, emphasizing for two goals as we understand it when we look at the state wide energy plan and we look at the Governor's program to provide for renewal energy sustainability. And those are to relieve diesel dependence and particularly in rural Alaska which does two things. It creates a viability of those communities and relieves the State of having to pay the money that it pays now as subsidies to the use of diesel. And,

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again, the threat that -- always that those prices will go up and make some of these communities unsustainable.

The second public strategic goal is, again, to support that sustainability so that we don't lose villages so we don't have people having to leave their traditional lifestyle or their rural economic lifestyle and abandoned what they're known for decades or in sometimes -- in some comes as in Akutan for several thousand years. So, again, I think those are the -- my interpretation of the very strategic goals of the State and I think this project comports with that.

The other issue in conjunction with that I would add that much of this resource development for geothermal is intertwine with Native Corporations and Native Corporation land ownership, tribal entities and village entities, so that, again, to me adds another factor to what you'll have to consider possibly in terms of how these land relationships develop, who's actually the owner, who is the driller, who's the operator and, again, it would be a little bit different, perhaps, in the standard oil and gas drilling program.

I will say again as an aside we've had a number of discussions particularly with the communities in the Aleutians that it's not quite clear what their ownership of geothermal resource is because they're the subsurface owners as the Regional Corporation and the State has sovereignty over certain elements of geothermal resources, so one of the questions we're

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facing is whether we could in any way get hit with a double royalty or a double charge when someone says I'll let you drill through my land for, you know, so much a foot and then the State says well, when you take those fluids out, of course, they belong to us so I think, again, that's probably one of the more significant issues that -- and there are some legal ramifications to that I know that people have investigated so I won't go into that any more.

In view of the State's funding of the Akutan geothermal project the City considers itself to be a partner with the Alaska Energy Authority and other agencies in pursuing the mutual goal of renewable energy development. We hope to develop the same relationship with the Commission, with the Staff here and with the whole team as we go through this process.

I've talked to several of the Commissioners and with Winton and other folks in terms of this transition. I think it's worked well and it's been hectic I know for you folks and for us. We've been working on this for a long time and I think there's been good cooperation in getting closure and in getting things moving with a potential spud date of July 15th which is breathing down our necks here very, very closely.

So, again, I would emphasize that we see this as a partnership. We've worked extremely well with AEA. We believe that, that partnership should be extended throughout the state

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administration.

Finally with regard to the proposed adoption of the new Article 7 of 20 AAC 25, I'd offer the following comments and, again, not as an expert, just as my view of someone being involved with one of the first projects of its kind that's going to forward in Alaska.

One, I think that this Commission should quickly promulgate additional changes to the regulations where as it's already been, sort of, discussed here with Dr. Aubert, there are certain things in the regulations that don't apply, that are oil and gas related and so on. And I guess my view would be it's important to do what's happening now and that is let's get the infrastructure -- the structure that moved over to the Commission and let the Commission begin to operate.

I think, however, again my suggestion would be that we work together and over time really eliminate those needs for waivers and variances. I mean, they should be just basically inherent in the geothermal chapter of the code and not have to contend with on either side the idea oh, that's a waiver, that's a variance and so again, I know that's going to take time and, again, that's a suggestion that we have.

The proposed calculation of Regulatory Cost Charge is basically for me and members of our team that I've talked to is a little bit difficult to understand how it's going to apply to this kind of project. Number one, we throughout the planning

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and implementation of the project have segmented exploration, you know, specifically from production. And in talking to our geologists and, again, Dr. Kolker may want to comment, the idea of measuring fluids and what constitutes, you know, geothermal resource going back to Commissioner Norman's comment, what is that real definition of what we're doing I think is another thing that we'll have to work together on as we come together on how to calculate these charges.

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Our senior engineer Alan Bailey (ph) with Geothermal Resources Group who couldn't testify today recommended that the Commission consider just a straight annual fee. In his experience in working with California, Nevada and most of the western states they simply have adopted a fee schedule. It's an annual payment that's made and there's basically no need to guess what next year's payment would be if you have that kind of schedule, so that -- again, that may be a suggested approach.

The -- that really concludes my remarks. Again, I want to thank the Commission for helping us get our project underway and for allowing us to testify here today. And I'd be glad to answer any questions that you might have.

CHAIR SEAMOUNT: Thank you, Mr. Mann. Commissioner Norman, do you have questions, comments?

COMMISSIONER NORMAN: No, I just thank Mr. Mann for his testimony.

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MR. MANN: Thank you.

CHAIR SEAMOUNT: Commissioner Foerster.

COMMISSIONER FOERSTER: I have a couple. Mr. Mann, I appreciate the statements that you gave us on issues that are important (indiscernible - coughing) 'cause they gives us a better flavor for who you are and most of us have a lot of experience with the oil and gas industry and so we know who they are so it's....

MR. MANN: Right.

COMMISSIONER FOERSTER: .....really nice to start to get to know who you guys are and I look forward to getting to know a lot more about that.

But my question is other than helping us to understand you for the sake of communicating and having a good relationship is there any way that that knowledge should impart what we do with our regulations?

MR. MANN: I guess my experience would harken to our work with the Department of Natural Resources 'cause we've been working with them for the better part of a year and the number one issue that presented itself at that time in how to implement these regulations or how to handle geothermal since it's new, you know, has been just the coordination of those two agencies. I have encouraged the folks at AEA to develop those lines of communication in which, again, as sponsors of these kinds of projects they should -- they have a vested interest.

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2 know, probably the main focal point for what you can take away from our experience I think. 3 COMMISSIONER FOERSTER: Okay, thank you. 4 COMMISSIONER NORMAN: Commissioner Seamount? 5 CHAIR SEAMOUNT: Commissioner Norman. 6 7 COMMISSIONER NORMAN: Yes, one other question, Mr. Mann, if you know, there will likely be some aspect of any project 8 that will involve a return of fluids back into the earth and 9 we're looking at that trying to figure out how that might fit 10 into the Federal Underground Injection Control Program. And in 11 12 that context we've run into in other states the idea of an open loop system versus a closed loop system. Do those terms mean 13 14 anything to you and if so could you comment on them as related to how you envision your project? 15 MR. MANN: Thank you, Commissioner Norman. Dr. Kolker 16 would be the best person to comment on that. 17 COMMISSIONER NORMAN: Very well. 18 MR. MANN: We are definitely aware of that and it 19 definitely would be a part of this project and so I think she 20 should comment on that if that's okay. 21 COMMISSIONER NORMAN: That's satisfactory. 22

They have a financial interest and I think that's really, you

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DR. KOLKER: Yeah, I'm sorry. I'm going to have to have

COMMISSIONER NORMAN: Yes, I'll repeat it Dr. Koke (sic),

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you repeat the question, I couldn't hear you at all.

whenever you're -- or Kolker, whenever you're ready to testify.

MR. MANN: I guess I would make one other comment, an aside which I didn't emphasize. The City is approaching this as a public and private development and so beyond the exploratory phase it's the City's intention to develop a private partnership in that the majority of the development funding and bringing the resource on line would be done through either a consortium approach or a development approach that uses private funding and may get involved with such things as carbon credits and tax incentives and so on to help bring it about, but our budget right now we see this as about a one-third exploration/government funding project and two-thirds of a primary development through private funds.

CHAIR SEAMOUNT: Okay. You know, I think some of your suggestions -- I don't know, I'm not sure, but may require some changes to the statute. And I know that the -- a lot of the Legislators are very excited about geothermal and I think they'd be really receptive to hearing what you have to say, but -- I mean, if -- you know, keep in communication with us and if it does require something like that then we can go down that route.

MR. MANN: Right, great. Our Representative Bryce Edgmon, of course, is the co-chair of the House Energy Committee so we stay very close. He's going to come out and visit the project along with Senator Lyman Hoffman this summer and they're very,

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very interested and very supportive when we were in Juneau testifying, et cetera, this summer -- this spring.

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CHAIR SEAMOUNT: I know Senator McGuire is very interested, too. And I've got to mentioned that we appreciate the dilemma you've been in, in the hand over -- the bureaucratic clash and hand over through all this, you know, we're -- we're in, sort of, a dilemma, too over this so I thank you for your patience.

MR. MANN: Well, we're here to cooperate and graduate.

CHAIR SEAMOUNT: Okay. Okay. I assume Dr. Kolker has something to say, testimony.

## AMANDA KOLKER

previously sworn, testified telephonically as follows on:

## DIRECT EXAMINATION CONTINUED

DR. KOLKER: I do, um-hum. Well, first of all before I get started I would like to thank the agencies involved, especially the Oil and Gas Conservation Commission for reviewing closely the regulations and I'm glad that, you know, the time has been taken to revisit these. They are old.

And geothermal is going to become more and more, I believe, an important -- important prospect in Alaska. So I think it's worth taking the time to revisit the regulations and make sure they're appropriate and they're up to date and all that. So I appreciate what the agency has done so far, but I do think, you know, it's -- we're on the right track of making

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it more of a collaborative process between the agency and industry and individual projects and Municipalities that are stakeholders in geothermal development in Alaska. So I appreciate this hearing and I appreciate the time that you've taken.

I do want to make a few just background, general comments, just share some of my knowledge about geothermal energy in Alaska 'cause I -- I've studied it for a long time and I've work in it for a while, so just in general I'd like to comment that if you ever look at a geothermal resources map of Alaska you'll see that there's many, many resources in Alaska and people talk about this all the time, any proven resources from drilling in the '70s and almost all of them except for one remain unexplored (ph).

And there are several barriers to geothermal energy. Some are general and some are Alaska specific. A general one is that geothermal has very high capital costs that -- you know, (indiscernible) costs and those especially within geothermal they happen when the project risk is very high, like, the resource is still unknown and so that's why states and the Federal Government have all, you know, very often committed to helping out projects in the high risk, initial high capital cost stage.

And as, sort of, our -- as Ray alluded to Akutan paradigm is while it's still really risky, we're going to get the

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State's help and prove up our resource basically and it's where the public funds are coming from. And then when the resource if proven up then that's when we can look for private funds. And these days private funds aren't even available to unproven resources the way the economy is working so that's pretty much how every project is going to have to go. And, you know, everybody (ph) knows this, they understand this and this is why they've developed help, you know, in the form of loans and grants to start up geothermal projects.

So another barrier to geothermal energy that's Alaska specific is the remoteness and that means a lot because geothermal projects need a lot of equipment, drill rigs you have to fly in which pretty much triple or quadruple the cost of normal geothermal exploration projects. You know, a lot of these places -- a lot of the resources are in places where there's no roads which not only means again flying in equipment and (indiscernible), but it also means once you go to produce and transmit the power then you have transmission issues and you've got to build roads for that, so it's an Alaska specific barrier.

You know, another Alaska specific barrier is human resources. Most villages just don't have the human resources to pull together a geothermal project.

You know, another Alaska -- I could go on and on, but I'll just mention one more which is land ownership. We have

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subsurface rights issues, we have surface rights issues so, you know, these things are making it difficult to develop geothermal in Alaska.

And I think one of the -- you know, proves that this is so difficult is that the only geothermal project in the state is at Chena Hot Springs. And regulations-wise what that means is actually significant because Chena it's interesting to note didn't have to -- under Title 11 the regulations didn't apply because at Chena the fluid is under 85 degrees celsius and so, you know, this is kind of a very (ph) little secret. I believe that's one of the reason that project went forward. You know, Bernie Karl never needed to ask anyone for anything because, you know, he's a single landowner and he was essentially drilling for backwater. So, you know, you guys might want to check into it. Who regulated the Chena Hot Springs project. I don't know of anyone. And that's the only geothermal project in the state that's gone forward.

And I'd just like to mentioned that, you know, most viable geothermal projects are believed -- you know, most projects that are believe to be viable are over 85 degrees celsius and that is the case in Akutan.

So despite all these barriers the state has decided to promote geothermal, you know, (indiscernible) grant funds, with loan options, other incentives to develop geothermal. And it's because geothermal is a base load renewable resource so unlike

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wind or solar it can completely displace fossil powered options. Also geothermal can provide heat so it's got the potential to take villages completely off diesel.

Other benefits related to heat greenhouses, et cetera, all of these are reasons why AEA in particular, but, you know, the State of Alaska has decided to promote geothermal. Simply it's the least (ph) risky in the future than diesel.

So these are just the general comment -- you know, comments that I wanted to give the picture of the general context in that geothermal has a significant amount of barriers to development.

And with the Akutan project I wanted to, you know, (indiscernible) some barriers I think one of the reasons I'm working back in project -- I think -- one of the most likely to move forward because some of these barriers are minimal. I mean, transmission in our case (ph) is minimal. We have a really good resource we're pretty sure. We just have to prove it up. Of course, you know, like I said that makes us follow the regulations, but as I said Akutan has been playing by the rules the whole time and we're going to follow them.

And, you know, as Ray mentioned this is not a profit making project. It's -- you know, the idea with the Akutan project is reduce the diesel dependance in the village period. And you know, what that means is reduce State subsidy through PCE (ph), so that's just some general comments I wanted to

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make.

Now, specifically our drilling program this summer is core hole drilling which is split (ph) hole drilling. It's an exploration drilling where the normal -- you know, this is pretty standard in geothermal that you drill exploration wells (indiscernible) and you often drill core holes. The success rate for exploration drilling, your core hole drilling is about 20 percent so this is why it's high risk and this is why, you know, we're asking for help from the state and it was awarded.

Core hole drilling is different from rotary drilling.

Core hole drilling is -- our diameter at the bottom of the well is going to be about two inches so it's a very small diameter well. It won't produce volumes. In fact, it's unlikely to produce very -- you know, very much water at all, enough to test the resource and that's the point of the well and so that's, sort of, the background.

And in terms of the regulations, again, I really would like to thank you for looking closely at them and, you know, proposing some changes, but I would like to testify that I think some of the proposed changes really don't make sense to me. I don't believe that applying existing oil and gas regulations is particularly appropriate modifications (ph).

I'm particularly concerned with this idea of having regulations that then must be waived in the case of geothermal.

I mean, waivers are ambiguous. They're subject to the whims of

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the individual agents, you know, it keeps a project guessing.

You know, it keeps a project guessing also about the time lines and -- you know, so that's one thing.

The geothermal geologic setting is entirely different from sedimentary basin (ph) which is the geologic setting for oil and gas. You know, it means the type of strata (ph) encountered are entirely different. Volcanic rocks, which are typically what you're going to find in geothermal, they behave very differently than sedimentary rocks. They retain fluid different, they fracture differently. There's -- you know, there's different dangers involved. So that's, you know, some comments in terms of the well drilling.

You know, exploration, we touched on this a little bit at the beginning of the call -- or of the meeting today. The exploration methodologies are entirely different. You know, somebody mentioned seismic not being particularly robust. I mean, seismic is not normally used with geothermal. There's a few instances in which it is particularly where you have a completely blind resource, but, you know, as I said with Alaska we have many proven resources and seismic probably wouldn't be used. And it's just an example of exploration being, you know, quite different on the other hand.

So I think that, you know, to some -- I think that Title

11 is -- entire regulation really was a good start. I think it

was consistent with what was going on in the '70s and '80s,

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with geothermal. It could use a bit of updating.

And I'd like to recommend that -- and I'll say this again at the end, but what other states have done is form a geothermal working group which is composed of government representatives from different agencies, industry people, geothermal project managers like myself and, you know, Municipalities, basically geothermal stakeholders that help mold the regulations to really be appropriate for the climate that we're in, for the geology that we're going to encounter, etc cetera, etc cetera.

So the other thing that I would like you to speak to is -you know, is this notion that adding geothermal wells to the
Commission's well definitions that I don't have a problem with
that, I'd just would like you to comment that, again, you're
going to need to distinguish between core holes and rotary
drilled holes. They're very different. They do entirely
different things. They're for entirely different purposes.
They require entirely different rigs and equipment, so, you
know, if the agency is going to add it to the well definition
you've got to distinguish between the two. And you've got to
get to know core hole drilling which is, you know, more of a
mining industry standard than an oil and gas industry standard.

So the other thing I'd like to mention is, you know, to speak to my own (indiscernible) this might not be great to mentioned, but, you know, one thing that isn't -- and this is

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an example of one of the things that isn't at all addressed in the regulations, but needs to be is this idea of injection and re-injection is very important in geothermal. It keeps your system (ph) renewable. And over the past 20 years that's really been the focus of changes in regulatory procedures. And I would suggest that, you know, any changes need to be made that's one the agency should revisit.

So, finally, I'll speak to the fees. I would agree with Ray I don't -- I don't think that the structure makes any sense to me. You know, based on volume thing well, that would basically mean that core holes which is great because we're not going to get volumes, but you know, the whole idea that the volumes effect the fee schedule I think is just a huge headache and it's based on the fact that, you know, the fluid coming out of these wells are going to be profit making. They're just not. It's not -- it's a different paradigm. And, you know, keep it (ph) -- I would rec- -- I would (indiscernible) that the recommendation to consider to the straight annual fee schedule that way you don't have to guess. You don't have to try to measure volumes on a periodic basis. You know, there's, no (indiscernible) there so.....

And so my recommendations would be to form a geothermal working group which actually has already been -- State of Alaska just I don't think any ever anymore (indiscernible) couple years. And have real action items for those meetings

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and have real individual technical issues addressed from the regulatory perspective and so that would be my first recommendation.

And then the second recommendation is, you know, to really consider which oil and gas regulations you're going to apply, if any, on, you know, a regulation by regulation basis and to consider a straight annual fee schedule.

So that concludes my comments. I'd be happy to answer any questions and if I think it was Commissioner Norman, if you could repeat your question again, I couldn't hear you at all?

CHAIR SEAMOUNT: Okay. Thank you, Dr. Kolker. I think you have some really interesting recommendations and your points are well taken. I would request that you could -- if there's any way you could make up a list of bullet points on one page and send it to us that would be really helpful.

DR. KOLKER: Sure.

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CHAIR SEAMOUNT: Okay. Commissioner Norman.

COMMISSIONER NORMAN: Are you able to hear me all right?

DR. KOLKER: Yeah, I hear you okay, thanks.

COMMISSIONER NORMAN: Okay. You touched on my question and I believe for the time being responded to it. My question was simply on how produced fluids would be handled upon reinjection and what requirements that might trigger under the Federal underground injection control program. And I don't know if you're ready to comment on that or not.

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We obviously have some further thinking to do about how all of this is going to work. And I think it's obvious based on what we've said here that we'll be revisiting these to fine tune these regulations and make some additions in the future, but if you have a comment on produced water or other fluids that you'd care to make that would be helpful.

DR. KOLKER: The only thing that, you know, without going into a lot of technical detail, the only thing that I would say is that other states re-injection regulations often deal with water rights. California and Nevada are the biggest producers of geothermal fluids that are also known to worst -- groundwater and most water rights disputes. So you know, that's not -- I mean,....

MR. MANN: Hello?

COMMISSIONER NORMAN: Are you still there, please?

DR. KOLKER: I'm here, can you hear me?

COMMISSIONER NORMAN: Yes, um-hum. And you concluded your comment, is that correct?

DR. KOLKER: No. Yeah, at least I would concur with you that we need to sit down and look carefully at the issues that are involved in terms of, you know, we're not going to be too worried about water rights which are the concern in other states, but we are going to be worried about underground water excused (ph). You know, Alaska has permafrost which nowhere else in the Lower 48 dealt with things like that. So I think

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2	needs to be looked at by experts.
3	COMMISSIONER NORMAN: Very good, thank you.
4	DR. KOLKER: Thank you.
5	CHAIR SEAMOUNT: Commissioner Foerster.
6	COMMISSIONER FOERSTER: Some very interesting
7	recommendation. I just need a little clarification. Are you
8	recommending that we not adopt any regulations until a work
9	group has completed it's work?
10	DR. KOLKER: Well, there I mean, the existing Title 11
11	recommend regulations under DNR, you know, were what we
12	were working with for most of the length of our project and
13	there were you know, we felt appropriate. I mean, the echo
14	the regulations in other states. You know, there are
15	definitely technical issues that I would say use Title 11
16	as a base and do some updating from there. I would say, you
17	know, obviously not be regulated, but I think that, you know,
18	Title 11 was a fine start.
19	COMMISSIONER FOERSTER: Okay. But are you aware of the
20	basis for the Title 11 regulations?
21	DR. KOLKER: I'm not sure what you mean?
22	COMMISSIONER FOERSTER: Were you aware that those were
23	just they just took the AOGCC's regulations that were in
[	

it's technically -- profound technical dilemma and I think it

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place at that time and dropped them in?

DR. KOLKER: Um-hum (affirmative)

COMMISSIONER FOERSTER: Did you realize that?

DR. KOLKER: I wouldn't know -- no.

COMMISSIONER FOERSTER: Okay. So you're recommending that we stick with those regulations that are in Title 11 and not adopt any until the work group has -- any new ones until the work group has completed its efforts?

DR. KOLKER: That's what I recommend, yes.

COMMISSIONER FOERSTER: Okay. That's all.

CHAIR SEAMOUNT: Okay. Dr. Kolker, you've mentioned other states, would you be able to tell us which state has the best regulations?

DR. KOLKER: That's a good question. People often look to California. I would say that I think in terms of walking this fine line between producing (indiscernible) and effective geothermal -- you know, developing good geothermal resources and, you know, actually having a project I think they're done a good job walking that line.

Having said that obviously there's tons of things they regulate for that wouldn't apply to us seeing that they're in a hot climate with little water and huge populations, but then California is generally used as the model.

Other states I would look at our Oregon and Nevada, but often Oregon and Nevada just pull things from California.

California has really been the spearhead.

CHAIR SEAMOUNT: Okay, thank you. Specifically to your

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project, how far away is your project from the city? 1 DR. KOLKER: Well, like I said we're still in the 2 exploration stage so we don't know exactly where the production 3 well will be located. Our exploratory holes are located 4 approximately, I think, it's four -- I'm thinking it's longer. 5 In miles I think it's about four miles and five miles from the 6 7 city. Ray, am I right? MR. MANN: Yeah, that's correct. 8 CHAIR SEAMOUNT: And it's on the same island I assume? 9 MR. MANN: Right. And it's about a mile closer to the 10 Trident plant as well. So where the transmission lines would 11 come out of the valley it's only one mile to Trident from 12 there. 13 CHAIR SEAMOUNT: So you don't have to tanker the 14 electricity over any water. That was a joke on the record, 15 16 that was a joke. MR. MANN: No, but we -- surprisingly we were asked by 17 some folks in Unalaska whether we'd consider undersea cabling 18 back to Unalaska. Engineers have a little problem with that. 19 CHAIR SEAMOUNT: Okay. 20 COMMISSIONER FOERSTER: I have one more question. 21 CHAIR SEAMOUNT: One more question. 22 COMMISSIONER FOERSTER: Mr. Mann, are you a resident of 23

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MR. MANN: No, I'm a resident of Anchorage. I live about

811 G STREET (907)277-0572/Fax 274-8982

Akutan?

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two blocks from here.

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COMMISSIONER FOERSTER: Okay, thank you.

CHAIR SEAMOUNT: Is it appropriate that we have final comments and adjourn?

COMMISSIONER FOERSTER: It's appropr- -- I don't see any reason to recess.

CHAIR SEAMOUNT: Okay. Commissioner Norman, comments or final questions?

COMMISSIONER NORMAN: No. I would like to thank both of the witnesses for some very good testimony. And I think we're all proceeding forward knowing that for this Commission and for all involved that we're somewhat plowing new ground, so we'll continue to cooperate and communicate principally and move forward.

CHAIR SEAMOUNT: Commissioner Foerster.

COMMISSIONER FOERSTER: Nothing other than thank you for good testimony.

CHAIR SEAMOUNT: I think it's an extremely exciting project. And personally my graduate education was in geothermal a long, long, long, long time ago and it's nice to see some of that coming back. We hope that you keep some good communications going with this agency, technical and other and we want to see it proceed. So with that do I hear a motion....

COMMISSIONER FOERSTER: I move we adjourn.

## R & R COURT <u>REPORTERS</u>

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1	COMMISSIONER NORMAN: Second.	
2	CHAIR SEAMOUNT: Okay. With that we are adjourned a	ıt
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# R & R COURT REPORTERS

# CERTIFICATE UNITED STATES OF AMERICA ) STATE OF ALASKA )

I, Rebecca Nelms, Notary Public in and for the State of Alaska, residing at Anchorage, Alaska, and Reporter for R & R Court Reporters, Inc., do hereby certify:

THAT the annexed and foregoing Public Hearing In the Matter of the Proposed Changes to Title 20, Chapter 25 of the Alaska Administrative Code: Geothermal Resources Drilling and Production, was taken by Suzan Olson on the 29th day of June, 2010, commencing at the hour of 9:00 a.m., at the Alaska Oil and Gas Conservation Commission, 333 West Seventh Avenue, Anchorage, Alaska;

THAT this Hearing Transcript, as heretofore annexed, is a true and correct transcription of the proceedings taken and transcribed by Suzan Olson to the best of her ability;

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 6th day of July, 2010.

Notary Public in and for Alaska My Commission Expires: 10/10/10

## R & R COURT REPORTERS

# STATE OF ALASKA OIL AND GAS CONSERVATION COMMISSION Geothermal Resources Drilling and Production Regulations

June 29, 2010 at 9:00 am

	NAME	<u>AFFILIATION</u>	PHONE #	TESTIFY (Yes or No
	RAY MANN	RMA/CITY OF	929.2013	ÄEZ
	WR Hicks	MUNKALIK DET	p 279-624	No - ?
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# DEPARTMENT OF NATURAL RESOURCES OFFICE OF THE COMMISSIONER

SEAN PARNELL, GOVERNOR

P.O. BOX 111000 JUNEAU, ALASKA 99811-1000 PHONE: (907) 465-2400 FAX: (907) 465-3886

550 WEST 7<sup>TH</sup> AVENUE, SUITE 1400 ANCHORAGE, ALASKA 99501-3650

PHONE: (907) 269-8431 FAX: (907) 269-8918

June 28, 2010

RECEIVED

Commissioners Seamount, Foerster and Norman Alaska Oil and Gas Conservation Commission 333 W. 7th Avenue, Suite 100 Anchorage, AK 99501

Alaska Oil & Gas Cons. Commission

JUN 3 0 2010

#### Dear Commissioners:

The Department of Natural Resources (DNR) has reviewed the following regulations proposed by the Alaska Oil and Gas Conservation Commission (AOGCC or Commission) in regard to geothermal resources:

- 1. 20 AAC 25.705 which includes geothermal wells in the Commission's regulatory jurisdiction;
- 2. 20 AAC 25.710 which extends the existing oil and gas well regulations, where applicable, to geothermal wells;
- 3. 20 AAC 25.715 which allows the Commission to grant regulatory variances and waivers, where appropriate;
- 4. 20 AAC 25.720, 725, 730, 735, 740 and 745 which establishes the calculation method for geothermal resource regulatory cost charge, and;
- 5. 20 AAC 25.990(73) which adds geothermal wells to the Commission's definition of well.

The following comments are offered for your consideration.

- A. We have considered whether, even at temperatures below 120 degrees Celsius, safety concerns may exist that would argue for assertion of AOGCC drilling control even where the definition would not necessarily support it, such as kicks or blowouts caused by high pressure water at any temperature. We note that AS 41.06.060 Definitions includes the following:
  - (4) "geothermal fluid" means liquids and steam at temperatures greater than 120 degrees Celsius or any commercial use of liquids and steam naturally present in a geothermal system at temperatures less than 120 degrees Celsius;
  - (5) "geothermal resources" (A) means the natural heat of the earth at temperatures greater than 120 degrees Celsius, or any use of that heat for commercial purposes, measured at the point where the highest-temperature resources encountered enter or contact a well or other resource extraction device or any commercial use of the natural heat of the earth;..."

With that in mind, we suggest **[additions]** to 20 AAC 25.710 and 20 AAC 25.990 as follows:

20 AAC 25.710. Applicability of regulations. Unless otherwise specified in this article, all regulations contained elsewhere in this chapter shall apply to wells drilled in search of or in suppot of the recovery or production of geothermal resources [geothermal fluids or geothermal energy].

20 AAC 25.990. Definitions. ...(73) "well"

- (a) means a hole penetrating the earth, usually cased with steel pipe, and
- (1) from which oil or gas, or both, **[geothermal fluid, geothermal resource,]** or geothermal energy, is obtained or obtainable; or
- (ii) that is made for the purpose of finding or obtaining oil, gas [, geothermal fluids, geothermal resources,] or geothermal energy production; and ...
- B. Because temperature data is of the utmost importance in regard to geothermal wells, and because geothermal projects are likely to be on non-State lands, making lease requirements inapplicable, the following **[addition]** is requested:

20 AAC 25.071 (b)

- [(9) the following items: (A) geothermal well logs showing lithologic characteristics and depth of formations encountered; depths and temperatures of water-bearing and steam-bearing strata; any data obtained about the temperatures, chemical compositions and physical characteristics of fluids encountered; the amount, size, and weight of casing used; and the size, type and density of perforated intervals.
- (B) temperature log(s) obtained by either continuous temperature logging or by comprehensive multiple point temperature survey(s).]
- C. To ensure access to subsurface data for use by the Leasing and Resource Evaluation sections of the Division of Oil and Gas, we request the following **[addition]**.

20 AAC 25.537

- [(f) Notwithstanding (b) and (d) of this section, permits, reports, and information required by this chapter to be filed by the operator or, in the case of lands owned by the State of Alaska, voluntarily submitted, are available to the Department of Natural Resources for inspection, copying, or duplication at the Department of Natural Resources' expense, and for its sole and exclusive use.
- D. While the Commission is required to consider water rights when deciding whether to approve a drilling permit, and can adopt regulations to prevent, among other things, unreasonable disturbance or injury to prior water rights, we do not find regulations dealing with the possible impairment of prior water rights as a factor in the Commission's decision-making. Under DNR unit regulations, 11 AAC 84.895 addresses how water rights are considered for drilling approval in a unit.

We request adoption of regulatory language that follows one of two possible paths:

- a) consultation with the DNR Division of Mining, Land and Water regarding possible impairment of prior water rights in relation to non-unitized geothermal drilling permit applications; or
- b) adoption of language similar to 11 AAC 84.895 to address how AOGCC will consider prior water rights in exercising their geothermal drilling authority.

Thank you for the opportunity to comment on the proposed regulations of the AOGCC relative to geothermal drilling.

Sincerely,

Thomas E. Irwin

ecc: Dick Mylius

Kevin Banks

Gary Prokosch

Sara Longan

Jack Hartz

Susan Browne

Paul Decker

Lisa Weissler

Shaun Peterson

Matt Rader

Bruce Buzby

# Comments on Proposed Changes in the Regulations of the Alaska On and Gas Conservation Commission, Title 20 Chapter 25 of the Alaska Administrative Code

Dr. Amanda Kolker, Geothermal Project Manager, City of Akutan

### **Background: Geothermal in AK**

- The state of AK contains vast geothermal resources. Many are considered "proven," and many are potentially high-quality. However, almost all remain unexploited.
- The barriers to geothermal energy development are significant. These include:
  - o **CAPITAL COST.** Geothermal development requires a large expenditure up front, when project risk is high.
  - ACCESS. The remoteness of rural AK inflates these costs even higher. Roadless terrain requires fly-in operations (e.g., drill rigs must be helicoptered in at substantial cost), longer and more expensive transmission lines, etc.
  - o **BENEFITS NOT ABSORBED BY INVESTORS.** Many of the benefits of geothermal use are difficult to quantify, such as reducing dependence on fuel imports, creating jobs, etc.
  - VILLAGE RESOURCES. Geothermal development is typically comprehensive, dealing with power and heating systems as a unified whole. This requires long-term planning and devoted human resources – a challenge for most rural communities.
  - LAND OWNERSHIP ISSUES. Geothermal development requires that surface and subsurface rights owners collaborate. This is often politically impossible.
- Nonetheless, the State of AK has decided to promote geothermal energy in AK, and backed up this commitment in the form of grant funds, loan programs, and other incentives. The reasons why the state has made this effort, I believe, is because:
  - o Geothermal can provide "baseload" power, unlike other renewables (wind, solar, etc.).
  - o Geothermal provides heat as well as power so it has potential to completely eliminate diesel dependence in certain villages.
  - Geothermal has the potential to provide economic development opportunities related to heat production (greenhouses, industrial uses, tourism, etc.)

#### **Background: The Akutan Geothermal Project (AGP)**

- The AGP is not a profit-making project. The City of Akutan is the project leader and benefactor.
   The point of the AGP is to reduce diesel dependence and stimulate economic development.
- Akutan very likely has a high-quality resource almost certainly over 85 °C. This, and the
  minimal transmission costs, make the project one of the most economically feasible in AK.

#### **Background: Geothermal Core hole drilling**

- Occurs early in exploration phase high risk because unproven resource.
- Average success rate is 20% (industry literature).
- Small diameter hole (bottom hole diameter around 2"). Does not produce substantial volumes of fluid cannot be produced.

## **Comments re: AOCGG Proposed Changes**

- 1) Applying OG regs is, in many cases, not appropriate.
  - There are significant differences between geothermal and O&G drilling, for example:
    - Geothermal core hole drilling not analogous to rotary drilling. May want to check with mining industry regulations core holes are common in mining ops.
    - Depths for geothermal holes are typically shallower, changing the engineering requirements.

# Comments on Proposed Changes in the Regulations of the Alaska Oh and Gas Conservation Commission, Title 20 Chapter 25 of the Alaska Administrative Code

Dr. Amanda Kolker, Geothermal Project Manager, City of Akutan

- Types of strata encountered—volcanic rocks vs. sedimentary rocks. These rocks have different mechanical properties (e.g., retain fluid differently, fracture differently, etc.) therefore present very different dangers.
- Strata do not typically contain organic material, so many O&G concerns do not apply (e.g., significant methane is not typically found in geothermal fields).
- Cementing, casing, completion protocols somewhat different.
- Exploration for geothermal resources is entirely different from petroleum exploration.
- O&G wells do not concern themselves with re-injection issues, which is a major concern in geothermal wells.
- 2) Adding geothermal wells to commission's well definition should be done with care.
  - Again, a distinction must be made between core holes and rotary-drilled holes.
  - Injection is very important in geothermal over the past 20 years, this has been a large focus of regulatory changes.
- 3) Proposed fee schedule is cumbersome and inappropriate.
  - Since the fee schedule is based on "volumes of geothermal fluid," that means:
    - Core holes would not be subject to fees since fluid returns are minimal, and not producible.
    - For larger-diamter geothermal holes, personnel will be required to measure volumes periodically, which in itself is challenging, and raises many additional questions (e.g., what's the measurement methodology? What if volumes change over time?).
  - At least in the case of Akutan, geothermal energy extraction is not a profit-making venture, and the wells will be drilled with public money. That the State of AK intends to finance the drilling of wells and then extract a fee when those wells are drilled, does not make logical sense. The two agencies
- 4) The approach of applying O&G regulations and then "waiving" them is very problematic. Waivers are ambiguous, and subject to the whims of individual agents, etc.

#### **Recommendations:**

- AOGCC should work with the Alaska Geothermal Working Group (AGWG) to revisit existing regulations, address technical issues, and propose appropriate changes and updates. The GWG should have an appointed leader, meet frequently, and be given specific action items and deadlines. On the GWG should be, at a minimum:
  - AOGCC representative(s)
  - ADNR representative(s)
  - AEA representative(s)
  - All other AK Geothermal project stakeholders
  - Geothermal industry representative(s)
- AOGCC should consider a straight annual fee schedule. This eliminates the "guessing-game" that geothermal projects would have to undertake with the proposed change. It would also eliminate the problematic requirement of measuring volume on a periodic basis.

# Colombie, Jody J (DOA)

From:

Amanda Kolker [info@ak-geothermal.com]

Sent:

Thursday, July 01, 2010 11:42 AM

To:

Colombie, Jody J (DOA)

Subject:

Kolker Comments to the Alaska Oil and Gas Conservation Commission

Attachments:

Kolker Comments AOGCC Regulation Changes.docx

Hello Jody,

Attached are the comments and recommendations I presented to the AOCGG at the public hearing regarding changes to geothermal regulations on Tuesday. The commissioner requested I email these comments to your agency.

Thanks,

Amanda Kolker Akutan Geothermal Project Manager 971-322-5002

# Comments on Proposed Changes in the Regulations of the Alaska Oil and Gas Conservation Commission, Title 20 Chapter 25 of the Alaska Administrative Code

# Presented by Raymond Mann, President, RMA Consulting Group and On Behalf of the City of Akutan 29 June 2010

Good morning Commissioners and members of the Commission staff. My name is Ray Mann and I am the President of RMA Consulting Group and Program Manager for the City of Akutan. Our company has been assisting the City of Akutan with its geothermal development project since 2008, including the preparation of Alaska Renewable Energy Grant Fund and other grant applications, Alaska Power Project Fund loans, Exploration and Development agreements with Akutan and Aleut Native Corporations, and the preparation and processing of required permits. We are currently completing the predrilling procurement and logistical phase of the project in preparation for the commencement of exploratory drilling operations on July 15<sup>th</sup> of this year.

The purpose of my comments this morning is to address several key issues related to geothermal exploration and development for consideration by the Commission in adopting the currently proposed and future regulations. These include:

- 1. The public benefits of geothermal exploration and development versus the traditional corporate economic model applied to oil and gas production.
- 2. The stated policies of the Alaska Legislature and successive Administrations to support the immediate development of renewable energy, including the vast geothermal resources of Alaska, to reduce the dependence on fossil fuels, and most significantly for villages such as Akutan, to promote the sustainability of rural Alaska communities, lifestyles and cultures.
- 3. Direct investment by the State of Alaska, through the Renewable Energy Grant Fund of hundreds of millions of dollars for renewable energy development, including the identification of nearly twenty viable geothermal development projects requiring near-term exploration and resource identification through state investment. Here again, unlike the profit motivated development of oil and gas, geothermal development will involve substantial, direct investment of public funds and a set of strategic public goals for the elimination of diesel dependence and economic and cultural sustainability for the future. It should be noted that <u>all</u> of the nearly four million dollars required to plan for and complete Akutan's exploratory drilling program this summer is public money.
- 4. The majority of geothermal development projects being supported and funded by the State of Alaska are community-based projects, Akutan, Unalaska, Manley to name a few. These are not the corporation—based

oil and gas programs the Commission customarily deals with. In addition, much of this local resource development is intertwined with Native Corporation land ownership, tribal values and rural sustainability.

All of these factors should be accounted for in any regulatory scheme adopted by the Commission, now and in the future. Geothermal development should be openly promoted by the Commission, as consistent with State policy, and not viewed simply as an "industry" to be regulated, nor as a source of revenue to offset declining oil and gas tax income.

In view of the State's funding of the Akutan geothermal project, the City considers itself to be a partner with the Alaska Energy Authority and other agencies in pursuing the mutual goal of renewable energy development. We are hopeful that the Alaska Oil and Gas Conservation Commission will join us in that partnership. Finally, with regard to the proposed adoption of the new Article 7 of 20 AAC 25, I would offer the following:

- The Commission should quickly promulgate revised sections 710 and 715
  to more definitively reflect the requirements of geothermal exploration and
  production, including definition of terms, technical requirements and
  procedures consistent with geothermal operations. RMA and the City of
  Akutan will be happy to work with the Commission and staff as these new
  regulations are developed.
- Consistent with the above-recommendation, the number of waivers and variances can most likely be reduced with the elimination of oil- and gascentered requirements from the geothermal resource sections of the regulations.
- 3. The proposed calculation of regulatory cost changes and the attendant formula in proposed 20AAC25.720 appears complex and could create uncertainty about fees and charges to be levied at various phases of geothermal development. I will let others discuss the technical details of this view; however, our initial reaction is that a more simplified, annual fee schedule be developed, similar to the approach adopted by most of the western states.

Thank you for this opportunity to comment on these important issues, and we look forward to working with the Commission and staff as this new chapter in resource development unfolds.

I will be happy to answer any questions you might have.

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# STATE OF ALASKA NOTICE OF PROPOSED CHANGES IN THE REGULATIONS OF THE ALASKA OIL AND GAS CONSERVATION COMMISSION

The Alaska Oil and Gas Conservation Commission proposes to adopt regulation changes to Title 20, Chapter 25 of the Alaska Administrative Code by renumbering current Article 7 as new Article 8, and adding a new Article 7 to deal with geothermal resource drilling and production. The new regulations proposed to be adopted by the Alaska Oil and Gas Conservation Commission include the following:

- (1) 20 AAC 25.705 includes geothermal wells in the commission's regulatory jurisdiction;
- (2) 20 AAC 25.710 extends the existing oil and gas well regulations, where applicable, to geothermal wells;
- (3) 20 AAC 25.715 allows Commission to grant regulatory variances and waivers, where appropriate;
- (4) 20 AAC 25.720, 725, 730, 735, 740 and 745 establishes calculation method for geothermal resource regulatory cost charge, and;
- (5) 20 AAC 25.990(73) adds geothermal wells to the commission's definition of well.

You may comment on the proposed regulation changes, including the potential costs to private persons of complying with the proposed regulations, by submitting written comments to the Alaska Oil and Gas Conservation Commission at 333 West 7<sup>th</sup> Avenue, Suite 100, Anchorage, Alaska 99501. The comments must be received no later than 4:30 p.m. on June 28, 2010.

Oral or written comments also may be submitted at a hearing to be held at 9:00 a.m. on June 29, 2010, at 333 West 7<sup>th</sup> Avenue, Suite 100, Anchorage, Alaska 99501. The hearing may continue beyond 12:00 p.m. to allow comment by those present before 9:30 a.m. The public comment period will close at the end of the June 29, 2010 hearing.

If you are a person with a disability who needs a special accommodation in order to participate in this process, please contact the Commission's Special Assistant Jody Colombie at (907) 793-1221 no later than June 23, 2010 to ensure that any necessary accommodations can be provided.

For a copy of the proposed regulation changes, contact Jody Colombie at 333 West 7<sup>th</sup> Avenue, Suite 100, Anchorage, Alaska 99501, (907) 793-1221, or go to www.aogcc.alaska.gov.

After the public comment period ends, the Alaska Oil and Gas Conservation Commission will either adopt these or other provisions addressing the same subject, without further notice, or decide to take no action on them. The language of the final regulations may be different from that of the proposed regulations. YOU SHOULD COMMENT DURING THE TIME ALLOWED IF YOUR INTERESTS COULD BE AFFECTED.

**Statutory Authority:** AS 41.06.005, AS 41.06.035, AS 41.06.040.

DATE: 5/28/10

Statutes Being Implemented, Interpreted, or Made Specific: AS 41.06.005, AS 41.06.035, AS 41.06.040.

Fiscal Information: The proposed regulation changes are not expected to require an increased appropriation.

Daniel T. Seamount, Jr., Chair

# ADDITIONAL REGULATIONS NOTICE INFORMATION (AS 44.62.190(d))

- 1. Adopting agency: Alaska Oil and Gas Conservation Commission.
- 2. General subject of regulations: Geothermal resources drilling and production.
- 3. Citation of regulations: 20 AAC 25.705, 20 AAC 25.710, 20 AAC 25.715, 20 AAC 25.720, AAC 25.725, 20 AAC 25.730, 20 AAC 25.735, 20 AAC 25.740, 20 AAC 25.745 and 20 AAC 25.990(73)
- 4. Reason for the proposed action: legislative action transferring geothermal regulatory authority to the Alaska Oil and Gas Conservation Commission.
- 5. Program category and BRU affected: Alaska Oil and Gas Conservation Commission.
- 6. Cost of implementation to the state agency: Annual cost is \$30,000 (2% of current inspection program cost).
- 7. The name of the contact person for the regulations:

Name: Winton Aubert

Title: Senior Reservoir Engineer

Address: 333 W. 7th Avenue, Suite 100, Anchorage, AK 99501

Telephone: (907) 793-1221

E-mail: winton.aubert@alaska.gov

8. The origin of the proposed action: agency staff.

9. Date: May 28, 2010

10. Prepared by: Jody I. Colombi

Alaska Oil and Gas Conservation Commission

(907) 793-1221

## STATE OF ALASKA

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F	AOGCC	AGENCY CONTACT	DATE OF A.O.
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		(907) 793 -1221 DATES ADVERTISEMENT REQU	IRED:
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#### Article 7

#### **Geothermal Resources**

#### Section

705. Authority of commission

- 710. Applicability of regulations
- 715. Variances
- 720. Calculation of regulatory cost charges for geothermal wells
- 725. Estimated regulatory cost charges for geothermal wells
- 730. Commission's determination of regulatory cost charges for geothermal wells
- 735. Payment dates for regulatory cost charges for geothermal wells
- 740. Supplemental appropriations
- 745. Effective date of regulatory cost charge regulations
- **20 AAC 25.705. Authority of commission.** All wells drilled in search of or in support of the recovery or production of geothermal resources shall comply with the regulations contained in this Article 7.
- **20 AAC 25.710. Applicability of regulations.** Unless otherwise specified in this article, all regulations contained elsewhere in this chapter shall apply to wells drilled in search of or in support of the recovery or production of geothermal resources.
- **20 AAC 25.715. Variances.** Upon request of the operator for any action under this article that has application to a single well or geothermal system, the commission may approve a variance from the commission's regulations, if (a) the approval provides at least an equally effective means of accomplishing the requirement set out in the commission's regulation; or
- (b) the commission determines that the request is more appropriate to the proposed operation than compliance with requirements of the regulation.
- **20 AAC 25.720. Calculation of regulatory cost charges for geothermal wells.** (a) The formula for determining a person's regulatory cost charge under AS 41.06.055 is

$$RCCg = \frac{Vgop}{Vgtot * (Ag-Lg)}$$

where

RCCg = the regulatory cost charge for geothermal wells;

Vgop = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, wells for which a Permit to Drill has been issued under AS 41.06.050, of which the person is the operator on the first day of the fiscal year, and that have not before that day been plugged and abandoned and reported as abandoned in accordance with this chapter;

Vgtot = the total volume of geothermal resources produced from, and all fluids and substances injected into, during the most recently concluded calendar year, all wells for which a Permit to



# MISCELLANEOUS BOARDS Draft 05/28/2010

Drill has been issued under AS 41.06.050 and that have not before the first day of the fiscal year been plugged and abandoned and reported as abandoned in accordance with this chapter;

- Ag = the appropriation, other than from federal receipts, made for the operating costs related to activities under Title 41 Chapter 06 of the Alaska Statutes of the commission for the fiscal year;
- Lg = the lapsed amount of a previous appropriation that is appropriated for the fiscal year under AS 41.06.055(d).
- (b) For purposes of calculating regulatory cost charges, volumes of geothermal resources produced from or injected into wells consist of the applicable volumes reported to the commission under 20 AAC 25.230(b) and 20 AAC 25.432, except that
  - (1) if an operator has failed to report a volume as required, if two or more reported volumes are inconsistent, or if the commission determines that a reported volume is otherwise unreliable, the commission will, in its discretion, calculate or estimate volumes as it considers appropriate;
  - (2) the commission will, in its discretion, add the volume of a substantial spill or other release of geothermal resources that is not included in a report under 20 AAC 25.230(b) or 20 AAC 25.432.
- (c) For purposes of determining volumes under AS 41.06.055(b) and this chapter 9,000 cubic feet of gaseous geothermal resources has a volume that is the equivalent of one barrel of liquid geothermal resources.
- (d) For purposes of AS 41.06.055(a) and this chapter, a well is considered plugged and abandoned and reported as abandoned in accordance with this chapter if the well has been abandoned in accordance with 20 AAC 25.105 and 20 AAC 25.112 and a complete well record for the well, including a description of plugging operations, on a Well Completion or Recompletion Report and Log (Form 10-407) as required by 20 AAC 25.070(3) has been filed with the commission after abandonment.
- 20 AAC 25.725. Estimated regulatory cost charges for geothermal wells. (a) Before determining regulatory cost charges for a fiscal year under 20 AAC 25.730 the commission will, in its discretion, establish estimated regulatory cost charges to be paid during the first quarter of the fiscal year. The amount of an estimated regulatory cost charge is one-fourth of the commission's reasonable estimate, based on information then available, of what the person's total regulatory cost charge will be for that fiscal year.
- (b) The commission will provide a person subject to an estimated regulatory cost charge with written notice of the amount of the charge and the payment date. The commission will set a payment date to at least 20 days after the date of the notice. The person shall pay the estimated regulatory cost charge by the payment date.
- **20** AAC 25.730. Commission's determination of regulatory cost charges for geothermal wells. (a) After the later of the beginning of a fiscal year or the date of enactment of an appropriation for the operating costs of the commission for that fiscal year, the commission will provide to persons subject to a regulatory cost charge under AS 41.06.055 written notice of the proposed regulatory cost charges to be imposed on persons subject to regulatory cost charges for that fiscal year and the basis for the charges, in accordance with 20 AAC 25.720.

- (b) Within 30 days after notice is issued under (a) of this section, a person subject to a regulatory cost charge may submit comments on, or request a revision to, the regulatory cost charges imposed for geothermal wells by the commission. A request for a revision must be accompanied by an explanation of the basis for the requested revision, and evidence in support of the request. Before a hearing is held under (c) of this section, the commission will provide all persons subject to a regulatory cost charge with copies of comments and requests for revision received by the commission or with notice of the persons' right to inspect those comments and requests for revision.
- (c) Within 60 days after notice is issued under (a) of this section, the commission will hold a public hearing in accordance with 20 AAC 25.540 on the proposed regulatory cost charges.
- (d) Within 90 days after notice is issued under (a) of this section, the commission will issue an order determining the regulatory cost charges to be paid and the dates by which the charges must be paid. The commission will provide written notice to each person subject to a regulatory cost charge of the person's regulatory cost charge and payment dates.
- (e) The commission will not determine or adjust previously determined regulatory cost charges based on fluid volume reports that are filed or amended, or on other fluid volume corrections that are made, after the deadline under (b) of this section for responding to the commission's notice of proposed regulatory cost charges, except if the commission finds that
- (1) a person has grossly under-reported the person's Vgop, as defined in 20 AAC 25.720(a);
- (2) under-reporting as described in (1) of this subsection caused or will cause others' regulatory cost charges to be materially excessive; and
  - (3) correcting the excessive regulatory cost charges is in the public interest.
- 20 AAC 25.735. Payment dates for regulatory cost charges for geothermal wells. (a) If the commission orders payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during the second, third, and fourth quarters of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-third of the difference between the person's regulatory cost charge and any estimated regulatory cost charge previously paid for the fiscal year, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.
- (b) If the commission does not order payment of estimated regulatory cost charges under 20 AAC 25.725, the commission will establish payment dates for regulatory cost charges during each quarter or each third of the fiscal year. No later than each payment date, a person subject to a regulatory cost charge shall pay one-fourth, if four payment dates are established, or one-third, if three payment dates are established, of the person's regulatory cost charge, except that a regulatory cost charge may be prepaid, in part or in whole, at any time.
- (c) The commission will set the first payment date in a fiscal year to be at least 20 days after the date the commission provides notice under 20 AAC 25.730(d).
- **20 AAC 25.740. Supplemental appropriations.** In the case of regulatory cost charges based on a supplemental appropriation for a fiscal year, (a) the commission will determine regulatory cost charges using the commission's determinations of geothermal resources and well operatorship previously made in connection with the regular appropriation for the fiscal year;



# MISCELLANEOUS BOARDS Draft 05/28/2010

(b) in applying the	formula set out in 20	) AAC 25.720(a), the	e commission w	ill set the
variable "Lg" equal to zero	ο;			

- (c) the commission will use the procedures set out in 20 AAC 25.730, except that the period
  - (1) for submitting comments or requesting a revision under 20 AAC 25.730(b) is 10 days instead of 30 days;
  - (2) within which a public hearing will be held under 20 AAC 25.730(c) is 20 days instead of 60 days; the commission will provide notice of that hearing at least 10 days before the date of that hearing; the 30-day notice requirement under 20 AAC 25.540 does not apply to a hearing held under this paragraph; and
  - (3) within which the commission will issue an order determining regulatory cost charges under 20 AAC 25.730(d) is 30 days instead of 90 days;
  - (d) 20 AAC 25.735 does not apply; and
- (e) the commission will set the payment date for regulatory cost charges to be at least 10 days after the date the commission provides notice under 20 AAC 25.730(d).

governing the take effect un	745. Effective date of regulator assessment of regulatory cost chatil after one full calendar year of s, Register)	arges in 20 AAC 25.720 thro	ough 25.740 shall not
Authority:	AS 41.06.005 AS 41.06.040	AS 41.0	06.035
follows: <b>20 AAC 25.</b>	existing Article 7 is renumbered to <b>990. Definitions.</b>	Article 8 and 20 AAC 25.99	90 is amended as
(73) " locatio	(a) means a hole penetrating the (i) from which oil or gas obtainable; or	s, or both, or geothermal energy curpose of finding or obtaining ting oil, gas or geothermal e well branches drilled to di	ergy, is obtained or ng oil, gas or energy production; and fferent bottom-hole

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# **MEMORANDUM**

# State of Alaska

Department of Law

Daniel T. Seamount, Jr., Chair

Alaska Oil and Gas Conservation

Commission

Dept. of Administration

From:

Chief Assistant Attorney General

and Regulations Attorney

Legislation and Regulations Section

Date: June 17, 2010

File No.: JU2010201538

Tel. No.: 465-3600

Re: Regulations File Opening Re:

20 AAC 25.700 - 990: Alaska Oil and Gas Conservation Commission:

Geothermal Resource Drilling

We have received your memorandum of June 16, 2010 regarding the above-referenced matter. The project has been assigned to Tab Ballantine, Assistant Attorney General, phone number 269-5100.

Our department's file number for this project is JU2010201538. This file number should be used on any further correspondence pertaining to this project.

# DEB:pvp

cc:

Robert Pearson, Regulations Contact

Dept. of Adminstration

Jody Colombie, Special Assistant Alaska Oil and Gas Conservation Commission Dept. of Administration

Scott Clark, AAC Coordinator Office of the Lieutenant Governor

Randy Ruaro, Deputy Chief of Staff Office of the Governor

Tina Kobayashi, Supervising Attorney Oil, Gas and Mining Section

Tab Ballantine, Assistant Attorney General Anchorage

# **RECEIVED**

JHN 2 2 2010

Alaska Oil & Gaz Cons. Commission Ancherage

# **MEMORANDUM**

# STATE OF ALASKA

# ALASKA OIL AND GAS CONSERVATION COMMISSION

TO:

Deborah E. Behr

DATE:

June 16, 2010

Assistant Attorney General

And Regulations Attorney

Legislation and Regulations Section

SUBJECT:

File-opening request for

Regulations Project on Geothermal Resource **Drilling and Production** 20 AAC 25.700 and 20

AAC 25.990

FROM:

Daniel T. Seamount, Jr., Chair AOGCC

Regulations Contact

Department of Administration



The Alaska Oil and Gas Conservation Commission (AOGCC) is requesting that you open a new file for a regulations project adding Section 700 of Title 20, Chapter 25, of the Alaska Administrative Code, pertaining to Geothermal Resource Drilling and production for the AOGCC.

The AOGCC previously mailed to the Department of Law the public notice, additional regulations notice information, and a draft of the regulations.

Please assign Assistant Attorney General Tab Ballantine to this project. Our contact person for the project is Jody Colombie at 793-1221.

**DEPARTMENT OF NATURAL RESOURCES** 

**DIVISION OF OIL & GAS** 

SEAR PARNELL, GOVERNOR

550 WEST 7<sup>TH</sup> AVENUE, SUITE 800 ANCHORAGE, ALASKA 99501-3560

PHONE: (907) 269-8800 FAX: (907) 269-8938

June 10, 2010

Alaska Oil and Gas Conservation Commission (AOGCC)
Commissioners John Norman, Catherine Foerster, and Dan Seamount
Dr. Winton Aubert
Hand Delivered

RE: Implementation of SB 243 Transferring Authority for Geothermal Permits from the Department of Natural Resources (DNR) Division of Oil and Gas (DO&G) to AOGCC and Related File Transmittal

Dear Commissioners and Dr. Aubert,

Governor Parnell signed SB 243 on June 2, 2010. Sec 22 is effective immediately (12:01 am AST the day after the Governor signs, therefore June 3, 2010).

#### **Transmittal**

To implement this law, DNR is transmitting and transferring responsibility for the following to AOGCC:

### 1. Naknek Electric Association

- Original Naknek Electric Assn., Well G-1 Permit to Drill Issued DNR A2215, P804, P829, P1273 file: These permits have been issued and drilled. Contact Susan Browne, DNR, with questions 269-8803.
- b. The data DNR has collected from the Naknek G-1 is available to AOGCC. Contact Shaun Peterson, Geologist, DNR Resource Evaluation, 269-6482, for data questions.
- c. Original Naknek G-2 Permit to Drill was not issued. DNR A2275, P1249, P1250 file: This permit has not been issued but has completed agency review and should be issued by AOGCC as soon as possible. Contact Matthew Rader, DNR, with questions, 269-8776
- d. Original Naknek statewide geothermal bond accepted by DNR file: This \$200,000 statewide bond has been accepted by DNR and is in use for the Naknek G-1 Well. Contact Brian Havelock, DNR, with questions 269-8807.

### 2. City of Akutan

- a. Original four City of Akutan Geothermal Permits to Drill were not issued; DNR A2273 file: These approvals have not been issued but have been through agency review and should be issued by AOGCC as soon as possible. Contact Matthew Rader, DNR, with questions 269-8776.
- b. Original unaccepted City of Akutan bond CD ITF: This bond is based on a CD held in trust for the state and has not yet been accepted. Contact DNR Brian Havelock 269-8807 with questions.

### 3. Electronic File Material

a. DNR has provided selected electronic copies of materials for these permits to AOGCC. A CD has been prepared containing the basic application and permit information held electronically by DNR for the Naknek Electric Assoc. and City of Akutan projects. Some of this material is not in the hard copy files transferred to AOGCC. In particular, the CD contains supporting information for the City of Akutan permit applications that is not in the file. Contact DNR Matthew Rader 269-8776 with questions.

## SB 243 reads in relevant part:

Sec. 20. The uncodified law of the State of Alaska is amended by adding a new section to 11 read:

- 12 TRANSITION: REGULATIONS. (a) To the extent the regulations are not
- 13 inconsistent with the language and purposes of this Act, regulations relating to geothermal
- 14 wells adopted by the Department of Natural Resources under AS 41.06 before July 1, 2010,
- 15 remain in effect as valid regulations implementing this Act. The Alaska Oil and Gas
- 16 Conservation Commission may administer and enforce regulations previously adopted under
- 17 AS 41.06 relating to geothermal wells until the Alaska Oil and Gas Conservation Commission
- 18 adopts regulations in accordance with this Act.
- 19 (b) The Alaska Oil and Gas Conservation Commission may immediately proceed to
- 20 adopt regulations necessary to implement the changes made by this Act. The regulations take
- 21 effect under AS 44.62 (Administrative Procedure Act), but not before July 1, 2010.
- 22 \* Sec. 21. The uncodified law of the State of Alaska is amended by adding a new section to 23 read:
- 24 REVISOR'S INSTRUCTIONS. The revisor of statutes is instructed to change the
- 25 catch line of AS 41.06.030 from "Reservoir management" to "Unitization."
- 26 \* Sec. 22. Section 20 of this Act takes effect immediately under AS 01.10.070(c).
- 27 \* Sec. 23. Except as provided in sec. 22 of this Act, this Act takes effect July 1, 2010.

If you have any questions please feel free to contact me at 269-8775, or one of the staff as indicated above.

Sincerely,

ecc:

Jonne Slemons

Permitting and Leasing Section Chief

ine Alemons

ADNR Office of the Commissioner of the Department of Natural Resources

ADNR DMLW Land, Rick Thompson, Clark Cox, Anchorage

ADNR DMLW Water, Gary Prokosch, Mike Walton, Anchorage

ADNR Division of Geological and Geophysical Surveys,

Rod Combellick, Fairbanks

Naknek Electric Association, Donna Vukich

Naknek Electric Association, Corri Feige, The Castle Mountain Group, Inc., Sutton, AK

City of Akutan, Susan Lutz

City of Akutan, RMA Consulting Group Robert Kirkman

# **MEMORANDUM**

# State of Alaska

Department of Law

To: Daniel T. Seamount, Chair

Oil and Gas Conservation Commission

Dept. of Administration

Date: February 2, 2010

File No.: JU2010201091

Tel. No.: 465-3600

From: Deborah E. Behr

Chief Assistant Attorney General Legislation and Regulations Section Re: File Opening re:

Geothermal Regulatory

Transfer

At the request of the governor's legislative office, we have opened a bill-drafting file for your office on the above-referenced matter.

The project has been assigned to Assistant Attorney General Tab Ballantine, phone number 269-5100. Please work closely with Tab Ballantine so that the final drafts can be submitted expeditiously.

Please contact me, Linda Miller, or Tab Ballantine if you have any questions about our bill-drafting work for you.

## DEB:pav

cc: Kevin Brooks, Legislative Liaison

Dept. of Administration

Tyson Fick, Legislative Liaison
Dept. of Commerce, Community, and Economic Development

Heather Brakes, Legislative Liaison Dept. of Natural Resources

Catherine Foerster, Commissioner Oil and Gas Conservation Commission Dept. of Administration

Randy Ruaro, Deputy Chief of Staff Office of the Governor

Tina Kobayashi, Supervising Attorney Oil, Gas and Mining Section

Tab Ballantine, Assistant Attorney General Anchorage

# **FISCAL NOTE**



STATE OF ALASKA				Fiscal Note N	umber:		
2010 LEGISLATIVE SESSION		Bill Version: CS SB 243			B 243		
				() Publish Date	e: -		
Identifier (file name): SB243CS -D0	DA-AOGCC-03-3	1-10		Dept. Affected	ł:	Admin	
Title				RDU		AOGCC	
"An Act relating to the ro	yalty obligation fo	or geotherma	l resources."	Component		AOGCC	
Sponsor Se	nator Lesil McG	uire					
Requester	(S) FIN	,		Component N	umber	2010	
Expenditures/Revenues			(Thou	sands of Doll	ars)		
Note: Amounts do not include inflation ur	less otherwise n	oted below.					
	Appropriation Required			Inform	ation		
OPERATING EXPENDITURES	FY 2011	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Personal Services	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Travel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractual	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supplies	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Land & Structures	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grants & Claims	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							
FUND SOURCE			(Thou	sands of Dolla	ırs)		
1002 Federal Receipts	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1003 GF Match	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1037 GF/Mental Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Interagency Receipts		0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Estimate of any current year (FY2010)	cost:		0.0				
POSITIONS							
Full-time							
Part-time							
Temporary							

ANALYSIS:	(Attach a separate page if n	ecessarv)

Additional work for the Alaska Oil and Gas Conservation Commission (AOGCC) resulting from this bill could be managed by existing staff. The agency would need to provide training for Commissioners and staff on geothermal drilling and production practices, but the costs would be absorbed by the agency. Therefore, AOGCC submits a zero fiscal note.

Prepared by:	Jody J. Colombie, Special Assistant I	Phone (907 793-1221
Division	Alaska Oil and Gas Conservation Commission	Date/Time 3/31/10 10:00 AM
Approved by:	Rachael Petro, Deputy Commissioner	Date 3/31/2010
	Department of Administration	<del></del> -

26-LS1346\S Bullock 3/26/10

## CS FOR SENATE BILL NO. 243( )

# IN THE LEGISLATURE OF THE STATE OF ALASKA TWENTY-SIXTH LEGISLATURE - SECOND SESSION

BY

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Offered: Referred:

Sponsor(s): SENATOR MCGUIRE

#### A BILL

## FOR AN ACT ENTITLED

"An Act relating to geothermal resources; relating to the royalty obligation for geothermal resources; transferring from the Department of Natural Resources to the Alaska Oil and Gas Conservation Commission authority over permitting and inspection of geothermal wells; providing for a regulatory cost charge for geothermal wells; and providing for an effective date."

## BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

- \* Section 1. AS 31.05.030 is amended by adding a new subsection to read:
  - (m) The commission has jurisdiction and authority over all persons and property, public and private, necessary to carry out the purposes and intent of AS 41.06, except for provisions in AS 41.06 for which the Department of Natural Resources has jurisdiction.
- \* Sec. 2. AS 38.05.181(g) is amended to read:
  - (g) Each geothermal lease shall be conditioned upon payment by the lessee of

CSSB 243( )

a royalty of 1.75 percent [NOT LESS THAN 10 PERCENT BUT NOT MORE THAN 15 PERCENT] of the gross revenues derived from the production, sale, or use of geothermal resources under the lease during the first 10 years immediately following the date the geothermal resource first generates gross income and 3.5 percent of the gross revenues derived from the production, sale, or use of geothermal resources under the lease after that first 10-year period. Royalties may be taken in kind rather than in value if the commissioner determines that taking in kind would be in the best interest of the state.

\* Sec. 3. AS 41.06 is amended by adding a new section to read:

- **Sec. 41.06.005. Jurisdiction over geothermal resources.** (a) The commission has jurisdiction under this chapter over geothermal wells to prevent waste, to protect correlative rights, and to ensure public safety.
- (b) The Department of Natural Resources has jurisdiction under this chapter over management of geothermal leases and units in the public interest and to effect development.
- \* Sec. 4. AS 41.06.010 is amended to read:
  - Sec. 41.06.010. Waste prohibited; investigation. The waste of geothermal resources in the state is prohibited. The commission may investigate to determine whether waste exists or is imminent, or whether other facts exist that justify or require action by the commission to prohibit waste.
- \* Sec. 5. AS 41.06.020 is repealed and reenacted to read:
  - **Sec. 41.06.020. Authority of commission; application.** (a) The commission has jurisdiction over all persons and property, public and private, necessary to carry out the purposes and intent of this chapter.
  - (b) The authority of the commission applies to all land in the state lawfully subject to the police power of the state, including private land, municipal land, state land, land of the United States, and land subject to the jurisdiction of the United States, and to all land included in a voluntary cooperative or unit plan of development or operation entered into in accordance with AS 38.05.181. When land that is subject to the commission's authority is committed to a unit agreement involving land subject to federal jurisdiction, the operation of this chapter or a part of this chapter may be

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suspended if

- (1) the unit operations are regulated by the United States; and
- (2) the conservation of geothermal resources is accomplished under the unit agreement.
  - (c) This chapter applies
- (1) to wells drilled in search of, in support of, or for the recovery or production of geothermal resources;
- (2) when a person engaged in drilling activity not otherwise subject to the provisions of this chapter encounters geothermal resources, fluid, or water of sufficient heat or pressure to constitute a threat to human life or health unless the drilling operation is subject to oil and gas drilling regulation under AS 31.05;
- (3) in areas and under conditions in which the commission determines that drilling may encounter geothermal resources, fluid, or water of sufficient heat or pressure to constitute a threat to human life or health.
- To the extent the provisions of AS 31.05 do not conflict with the provisions of this chapter, the provisions of AS 31.05 are applicable to wells drilled in search of, in support of, or for the recovery or production of geothermal resources.
  - (e) Nothing in this chapter limits the authority of the department
    - (1) over geothermal resources under AS 38.05.181; or
- (2) to approve and manage geothermal units or operations that include state land.
- \* Sec. 6. AS 41.06.030(a) is amended to read:
  - The commissioner shall require the filing and approval of a plan of development and operation on a [EACH PRODUCING] geothermal system that includes state land [AND MAY ISSUE WELL-SPACING AND POOLING ORDERS, LIMITS ON PRODUCTION, AND REINJECTION REQUIREMENTS, IN ORDER TO PREVENT WASTE, PROMOTE MAXIMUM ECONOMIC RECOVERY, AND PROTECT CORRELATIVE RIGHTS].
- \* Sec. 7. AS 41.06.030(b) is amended to read:
  - (b) Lessees of all or part of a geothermal system that includes state land may enter into a unit agreement for cooperative development, with the approval of the

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commissioner. The commissioner may suspend or modify the approved development plan in accordance with the unit agreement.

# \* Sec. 8. AS 41.06.030(c) is amended to read:

- If the owners of at least two-thirds of the leasehold interests in a geothermal system ratify a unit agreement approved under (b) of this section by the commissioner, the commissioner may enforce the agreement as to lessees not a party to the agreement by allocating production under the principle of correlative rights and by apportioning costs and revenues.
- \* Sec. 9. AS 41.06.030 is amended by adding a new subsection to read:
  - (e) The commissioner may adopt regulations under AS 44.62 to carry out the purposes and intent of this chapter for duties assigned to the department, including the promotion of maximum economic recovery.
- \* Sec. 10. AS 41.06 is amended by adding a new section to read:
  - Sec. 41.06.035. Reservoir management; commission's regulations. (a) The commission may issue well-spacing and pooling orders, place limits on production, and impose reinjection requirements for the purpose of preventing waste and to protect correlative rights in a geothermal system.
  - (b) The commission may adopt regulations under AS 44.62 and issue orders appropriate to carry out the purposes and intent of this chapter for duties assigned to the commission, including orders regarding the establishment of drilling units for pools as set out in AS 31.05.100 and orders regarding unitized operation and integration of interests as set out in AS 31.05.110.
- \* Sec. 11. AS 41.06.040(a) is repealed and reenacted to read:
  - (a) The commission shall adopt regulations under AS 44.62 (Administrative Procedure Act), issue orders, and take other appropriate action to carry out the purposes and intent of this chapter, including adopting regulations to prevent
  - geothermal resources, water or other fluids, and gases from (1) escaping into strata other than that in which they are found, unless in accordance with an approved reinjection program;
    - (2) contamination of surface and groundwater;
    - premature degradation of a geothermal system by water (3)

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nt or otherwise; 2

- (4) blowouts, cavings, and seepage; and
- (5) unreasonable disturbance or injury to neighboring properties, prior water rights, prior oil or gas rights, human life, health, and the natural environment.
- \* Sec. 12. AS 41.06.040(b) is amended to read:
  - (b) The **commission** [COMMISSIONER] shall **require** [CAUSE] the operator of a geothermal well [OR WELLS] to file adequate an individual or blanket surety bond [BONDS] to ensure compliance with regulations adopted under this section.
- \* Sec. 13. AS 41.06.040(c) is amended to read:
  - (c) The **commission** [COMMISSIONER] shall require a geothermal operator to notify the commission [DEPARTMENT] if the operator discovers significant quantities of hydrocarbon substances, helium, or fissionable materials.
- \* Sec. 14. AS 41.06.040(d) is amended to read:
  - (d) The commission and its staff [COMMISSIONER] may enter upon any property, public or private, to inspect a geothermal operation for compliance with regulations adopted under this section.
- \* Sec. 15. AS 41.06.050 is repealed and reenacted to read:
  - Sec. 41.06.050. Permits to drill. (a) A person shall apply for and receive a permit from the commission before drilling a well in
    - (1) search of geothermal resources; or
    - (2) support of the recovery or production of geothermal resources.
  - (b) The application required in (a) of this section must contain sufficient information to enable the commission to determine if the operation of the well will interfere with or impair a prior water, oil, or gas right.
  - (c) A person must submit a separate permit application for each well. The permit application must be in the form or format required by the commission and include all information required by the commission.
  - (d) As soon as practicable after receiving an application under (a) of this section, the commission shall approve or deny the application for a permit to drill.
    - (e) In making the determination under (d) of this section, the commission shall

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consider whether the

- proposed well will significantly interfere with or substantially (1)impair a prior water, oil, or gas right;
- (2) proposed well is contrary to a provision of this chapter, a regulation adopted by the commission, another law, or an order, stipulation, or term of a permit issued by the commission; and
- (3) applicant is in violation of a provision of this chapter, a regulation adopted by the commission, another law, or an order, stipulation, or term of a permit issued by the commission; the commission shall consider the magnitude of the violation.
- \* Sec. 16. AS 41.06 is amended by adding a new section to read:
  - Sec. 41.06.055. Regulatory cost charge for geothermal wells. (a) Each person that, on the first day of a state fiscal year, operates a well within the jurisdiction of the commission for which a permit to drill has been issued under AS 41.06.050 shall pay to the commission an annual regulatory charge for each well that has not, before the first day of that state fiscal year, been
    - (1) plugged and abandoned; and
  - reported as abandoned in accordance with regulations of the commission.
  - (b) The commission shall annually determine the regulatory cost charge to be paid under this section. The regulatory cost charge to be paid by a person for a state fiscal year must be based on the total volume during the most recent calendar year for the wells described in (a) of this section of which the person was the operator on the first day of the fiscal year as a percentage of the total volume during the same calendar year for all wells described in (a) of this section. In this subsection, "total volume" means the sum of the volume of all geothermal resources produced from a well and all fluids and substances injected or otherwise artificially introduced into the well.
  - (c) The commission shall determine the regulatory cost charges levied under this section so that the total amount to be collected approximately equals the appropriations made for the operating costs of the commission that have been incurred under this chapter for the fiscal year.

(d) The commission shall collect the regulatory cost charges imposed under
this section. The Department of Administration shall identify the amount of
appropriations made for the operating costs of the commission under this chapter that
lapse into the general fund each year. The legislature may appropriate an amount that
is at least equal to the lapsed amount to the commission for its operating costs under
this chapter for the next fiscal year. If the legislature makes an appropriation to the
commission under this subsection that is equal to or greater than the lapsed amount,
the commission shall reduce the total regulatory cost charge collected for that fiscal
year by a comparable amount.

- (e) The commission may adopt regulations relating to the investigation of the accuracy of reported information and for collecting required payments under this section.
- \* Sec. 17. AS 41.06.060 is repealed and reenacted to read:
  - Sec. 41.06.060. Definitions. In this chapter, unless the context otherwise requires,
  - (1) "commission" means the Alaska Oil and Gas Conservation Commission created under AS 31.05.005;
  - (2) "correlative rights" means the right of an owner of each property in a geothermal system to produce without waste the owner's just and equitable share of the geothermal resources in the geothermal system; a just and reasonable share is an amount, so far as can be practically determined and so far as can be practically produced without waste, that is substantially in proportion to the quantity of recoverable geothermal resources under the owner's property relative to the total recoverable geothermal resources in the geothermal system;
  - (3) "geothermal fluid" means liquids and steam at temperatures greater than 120 degrees Celsius or any commercial use of liquids and steam naturally present in a geothermal system at temperatures less than 120 degrees Celsius;
    - (4) "geothermal resources"
    - (A) means the natural heat of the earth at temperatures greater than 120 degrees Celsius, or any use of that heat for commercial purposes, measured at the point where the highest-temperature resources encountered

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CSSB 243( )

enter or contact a well or other resource extraction device or any commercial use of the natural heat of the earth;

## (B) includes

- (i) the energy, including pressure, in whatever form present in, resulting from, created by, or that may be extracted from that natural heat;
- (ii) the material medium, including steam and other gases, hot water, and hot brines constituting the geothermal fluid naturally present, as well as substances artificially introduced to serve as a heat transfer medium; and
- (iii) all dissolved or entrained minerals and gases that may be obtained from the material medium, but excluding hydrocarbon substances and helium;
- (5) "geothermal system" means a stratum, pool, reservoir, or other geologic formation containing geothermal resources;
- "operator" means a person drilling, maintaining, operating, (6)producing, or in control of a well;
- (7) "owner" means the person who has the right to drill into or produce from a geothermal system and to appropriate the geothermal resources produced from a geothermal system for that person and others;
- (8) "waste" means, in addition to its ordinary meaning, physical waste, and includes an inefficient, excessive, or improper production, use, or dissipation of geothermal resources, including
  - (A) drilling, transporting, or storage methods that cause or tend to cause unnecessary surface loss of geothermal resources;
  - (B) locating, spacing, drilling, equipping, operating, producing, or venting of a well in a manner that results or tends to result in reducing the ultimate economic recovery of geothermal resources;
- "well" means a well drilled, converted, or reactivated for the discovery, testing, production, or subsurface injection of geothermal resources.
- \* Sec. 18. AS 41.06.030(d) and 41.06.040(e) are repealed.

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\* Sec. 19. The uncodified law of the State of Alaska is amended by adding a new section to read:

APPLICABILITY; AMENDMENT OF EXISTING LEASES. (a) Section 2 of this Act applies to a lease for a geothermal resource or the renewal of a lease for a geothermal resource entered into on or after the effective date of sec. 2 of this Act.

- The commissioner of natural resources shall offer the royalty rates in (b) AS 38.05.181(g), as amended by sec. 2 of this Act, as an amendment to a lease or a renewal of a lease entered into before the effective date of sec. 2 of this Act.
- \* Sec. 20. The uncodified law of the State of Alaska is amended by adding a new section to read:

TRANSITION: REGULATIONS. (a) To the extent the regulations are not inconsistent with the language and purposes of this Act, regulations relating to geothermal wells adopted by the Department of Natural Resources under AS 41.06 before July 1, 2010, remain in effect as valid regulations implementing this Act. The Alaska Oil and Gas Conservation Commission may administer and enforce regulations previously adopted under AS 41.06 relating to geothermal wells until the Alaska Oil and Gas Conservation Commission adopts regulations in accordance with this Act.

- (b) The Alaska Oil and Gas Conservation Commission may immediately proceed to adopt regulations necessary to implement the changes made by this Act. The regulations take effect under AS 44.62 (Administrative Procedure Act), but not before July 1, 2010.
- \* Sec. 21. The uncodified law of the State of Alaska is amended by adding a new section to read:

REVISOR'S INSTRUCTIONS. The revisor of statutes is instructed to change the catchline of AS 41.06.030 from "Reservoir management" to "Unitization."

- \* Sec. 22. Section 20 of this Act takes effect immediately under AS 01.10.070(c).
- \* Sec. 23. Except as provided in sec. 22 of this Act, this Act takes effect July 1, 2010.

#### Colombie, Jody J (DOA)

From:

Foerster, Catherine P (DOA)

Sent:

Wednesday, March 31, 2010 8:55 AM

To:

Colombie, Jody J (DOA)

Subject:

FW: IMPORTANT!!!!!!! FISCAL NOTES FOR SB 243 S

Attachments:

Sb 243 S Version.pdf

From: Michael Pawlowski [mailto:Michael\_Pawlowski@legis.state.ak.us]

Sent: Tuesday, March 30, 2010 4:09 PM

To: Brakes, Heather K (GOV)

**Cc:** Foerster, Catherine P (DOA); Banks, Kevin R (DNR) **Subject:** IMPORTANT!!!!!!! FISCAL NOTES FOR SB 243 S

Heather -

Just got a note from Darwin in Sen. Stedman's office

We have to get fiscal notes to the S version of SB 243 Geothermal (S- version with AOGCC and DNR language) by tomorrow. Is that possible????

**Thanks** 

Mike Pawlowski



#### **FISCAL NOTE**



#### STATE OF ALASKA Fiscal Note Number: LL 1091 2010 LEGISLATIVE SESSION Bill Version: () Publish Date: Dept. Affected: Admin Identifier (file name): 1091-DOA-AOGCC-02-18-10 AOGCC RDU Title An Act relating to geothermal resources..." Component AOGCC Senator Lesil McGuire Sponsor Requester Senator Lesil McGuire Component Number 2010 (Thousands of Dollars) **Expenditures/Revenues** Note: Amounts do not include inflation unless otherwise noted below. Appropriation Required Information FY 2015 FY 2016 FY 2011 FY 2012 FY 2013 FY 2014 **OPERATING EXPENDITURES** FY 2011 0.0 0.0 0.0 0.0 Personal Services 0.0 0.0 0.0 0.0 0.0 0.0 Travel 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Contractual 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Supplies 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Equipment 0.0 0.0 0.0 Land & Structures 0.0 0.0 0.0 0.0 0.0 0.0 Grants & Claims 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Miscellaneous 0.0 **TOTAL OPERATING** 0.0 0.0 0.0 0.0 0.0 0.0 **CAPITAL EXPENDITURES** CHANGE IN REVENUES ( **FUND SOURCE** (Thousands of Dollars) 0.0 0.0 1002 Federal Receipts 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1003 GF Match 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1004 GF 0.0 0.0 0.0 0.0 1005 GF/Program Receipts 0.0 0.0 0.0 0.0 0.0 0.0 1037 GF/Mental Health 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Other Interagency Receipts 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 TOTAL 0.0 Estimate of any current year (FY2010) cost: 0.0 **POSITIONS** Full-time Part-time Temporary (Attach a separate page if necessary) **ANALYSIS:** Any additional work or necessary training resulting from this bill could be managed by existing staff and the costs would be absorbed by the agency. The agency, therefore, submits a zero fiscal note.

Prepared by:	Jody J. Colombie, Special Assistant I	Phone (907 793-1221
Division	Alaska Oil and Gas Conservation Commission	Date/Time 2/18/10 4:00 PM
Approved by:	Rachael Petro, Deputy Commissioner	Date 2/18/2010
	Department of Administration	

#### Colombie, Jody J (DOA)

From:

Foerster, Catherine P (DOA)

Sent:

Thursday, February 18, 2010 10:05 AM

To:

Brooks, Kevin A (DOA)

Cc:

Pearson, Robert L (DOA); Seamount, Dan T (DOA); Norman, John K (DOA); Colombie, Jody

J (DOA); Paladijczuk, Tracie L (DOA)

Subject:

RE: Greensheet JU2010201091 geothermal resources

Kevin,

As we discussed on the phone, the AOGCC and the DNR are supportive of this bill and have collaborated through our AG's on crafting language for it.

The bill would transfer authority for the regulation of geothermal <u>operations</u> from DNR to AOGCC (while leaving with DNR all the other geothermal authorities they are interested in maintaining). If the DNR keeps this authority, they will either have to hire staff (a drilling engineer and a field inspector and possibly a geologist all with geothermal experience) or have to contract with the AOGCC (or some other entity) for our staff to do the work (which is what's happening right now). There are other complications with the status quo that I won't bore you with, but the short message is that both DNR and AOGCC feel that the transfer of this authority is in the best interests of the State of Alaska.

Jody will be sending you a fiscal note. The AOGCC will need to expend some money on geothermal training for our staff. (We would need to expend this money even if the DNR kept the authority but asked us to do the work; so I'm not sure how you want to treat it as far as a fiscal note goes.) Also, as we discussed on the phone, a bit of technical training will cost minor dollars compared with the cost of the DNR having to hire or contract two or three high-paid folks.

Hope this helps. Let us know if you need more or different info.

Cathy

From: Brooks, Kevin A (DOA)

Sent: Thursday, February 18, 2010 9:21 AM

To: Seamount, Dan T (DOA); Foerster, Catherine P (DOA); Norman, John K (DOA)

Cc: Pearson, Robert L (DOA)

**Subject:** FW: Greensheet JU2010201091 geothermal resources

Dan, please take a look at the attached bill and provide feedback/comments. I'll need to submit our position to the Gov's legislative office on the attached greensheet by tomorrow (Friday). Let me know if you have any questions or need to discuss.

Thanks.

ΚB

From: Machulsky, Mara M (GOV)

Sent: Wednesday, February 17, 2010 5:22 PM

To: Brooks, Kevin A (DOA)

Subject: Greensheet JU2010201091 geothermal resources

Attached please find the greensheet for JU 1091

Relating to geothermal resources; relating to the transfer of authority from the Department of Natural Resources to the Alaska Oil and Gas Conservation Commission over permitting and inspection of geothermal wells; and relating to a regulated well regulatory cost charge for geothermal resources.

Due February, 19 2010

#### Mara Machulsky

#### Legislative Executive Assistant

#### Office of Governor Sean Parnell

P.O. Box 110001

Juneau, AK 99811-0001

PHONE: 907.465.4021

CELL: 907.723.5753

mara.machulsky@alaska.gov

www.gov.state.ak.us

#### Colombie, Jody J (DOA)

From:

Foerster, Catherine P (DOA)

Sent:

Thursday, February 18, 2010 9:34 AM

To:

Colombie, Jody J (DOA)

Subject: Attachments: FW: Greensheet JU2010201091 geothermal resources LL 1091 geothermal resources.pdf; JU2010201091.pdf

From: Brooks, Kevin A (DOA)

Sent: Thursday, February 18, 2010 9:21 AM

To: Seamount, Dan T (DOA); Foerster, Catherine P (DOA); Norman, John K (DOA)

Cc: Pearson, Robert L (DOA)

Subject: FW: Greensheet JU2010201091 geothermal resources

Dan, please take a look at the attached bill and provide feedback/comments. I'll need to submit our position to the Gov's legislative office on the attached greensheet by tomorrow (Friday). Let me know if you have any questions or need to discuss.

Thanks.

ΚB

From: Machulsky, Mara M (GOV)

Sent: Wednesday, February 17, 2010 5:22 PM

To: Brooks, Kevin A (DOA)

Subject: Greensheet JU2010201091 geothermal resources

#### Attached please find the greensheet for JU 1091

Relating to geothermal resources; relating to the transfer of authority from the Department of Natural Resources to the Alaska Oil and Gas Conservation Commission over permitting and inspection of geothermal wells; and relating to a regulated well regulatory cost charge for geothermal resources.

Due February, 19 2010

#### Mara Machulsky

Legislative Executive Assistant

Office of Governor Sean Parnell

P.O. Box 110001

Juneau, AK 99811-0001

PHONE: 907.465.4021

CELL: 907.723.5753

mara.machulsky@alaska.gov

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SEAN PARNELL GOVERNOR STATE OF ALASKA



P.O. Box 110001 Juneau, Alaska 99811-0001 (907) 465-3500 Fax (907) 465-5532 www.gov.state.ak.us

#### STATE OF ALASKA GOVERNOR'S LEGISLATIVE OFFICE JUNEAU

#### **CONFIDENTIAL FOR INTERNAL REVIEW ONLY**

DATE:				
		uary 17, 2010		
TO:		n Brooks		
DEPARTMEN	IT: Adm	inistration		
FROM:	Heat	her Brakes, Deputy Legislativ	e Director	
<b>TELEPHONE</b> :	: (907)	) 465-4021		
LAW LOG:	JU20	10201091		
DEADLINE:		uary 19, 2010		
	Natural Resour	ces to the Alaska Oil and Gas	relating to the transfer of authority Conservation Commission over po all regulatory cost charge for geotle	ermitting and
Attached is draf	t legislation that	may affect your agency.		
you have any co	oncerns or notice		ke to it or the attached draft transmi ut them, list your recommendations	
E-mail an attac and Mara Mac	ched briefing pa chulsky at <u>Mara</u>	per and fiscal note in PDF to F .Machulsky@alaska.gov .	<b>Ieather Brakes at <u>Heather.Brakes</u></b>	@alaska.gov
	referred house fo		eet, and return all relevant material t	to the governor's
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Legislative Officuse the following of the email:  RECOMMENTA Approve  INTRODUCE House	ng identification Last  DATION (circle Hold  IN (circle applic Senate	format on the legislation's fiscal 4 Digits of the Law Log Number (Example: 0009-EED-ESS-1-0) applicable): Do Not Approve	note, the name of the PDF documenter-Department-Component-Date (33-07)	nt, and the subjec

JU2010201091 bill.doc

2/17/2010

#### BILL NO.

## IN THE LEGISLATURE OF THE STATE OF ALASKA TWENTY-SIXTH LEGISLATURE - SECOND SESSION

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Introduced: Referred:

#### A BILL

#### FOR AN ACT ENTITLED

"An Act relating to geothermal resources; relating to the transfer of authority from the Department of Natural Resources to the Alaska Oil and Gas Conservation Commission over permitting and inspection of geothermal wells; relating to a regulated well regulatory cost charge for geothermal resources; and providing for an effective date."

#### BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

\* Section 1. AS 41.06 is amended by adding a new section to read:

Sec. 41.06.005. Jurisdiction over geothermal wells. The Alaska Oil and Gas Conservation Commission has jurisdiction under this chapter over geothermal wells.

\* Sec. 2. AS 41.06.010 is amended to read:

Sec. 41.06.010. Waste prohibited; investigation. The waste of geothermal resources in the state is prohibited. The commission may investigate to determine whether waste exists or is imminent, or whether other facts exist that justify or require action by the commission.

\* Sec. 3. AS 41.06.020 is repealed and reenacted to read:

**Sec. 41.06.020. Application.** (a) The commission has jurisdiction over all persons and property, public and private, necessary to carry out the purposes and intent of this chapter.

- (b) The authority of the commission applies to all land in the state lawfully subject to the police power of the state, including private land, municipal land, state land, land of the United States, and land subject to the jurisdiction of the United States. The authority of the commission further applies to all land included in a voluntary cooperative or unit plan of development or operation entered into in accordance with AS 38.05.181. When any of that land is committed to a unit agreement involving land subject to federal jurisdiction, the operation of this chapter or a part of this chapter may be suspended, if the unit operations are regulated by the United States and if the conservation of geothermal resources is accomplished under the unit agreement.
  - (c) The provisions of this chapter apply
- (1) to wells drilled in search of, in support of, or in recovery or production of geothermal resources;
- (2) when a person engaged in drilling activity not subject to the provisions of this chapter encounters geothermal resources, fluid, or water of sufficient heat or pressure to constitute a threat to human life or health, unless the drilling operation is subject to oil and gas drilling regulation under AS 31.05;
- (3) in areas and under conditions in which the commission determines that drilling may encounter geothermal resources, fluid, or water of sufficient heat or pressure to constitute a threat to human life or health.
- (d) To the extent the provisions of AS 31.05 do not conflict with the provisions of this chapter, the provisions of AS 31.05 are applicable to wells drilled in search of, in support of, or in recovery or production of geothermal resources.
- (e) Nothing in this chapter limits the authority over geothermal resources granted to the Department of Natural Resources under AS 38.05.181.
- \* Sec. 4. AS 41.06.030(a) is amended to read:
  - (a) The <u>commission may</u> [COMMISSIONER SHALL] require the filing and approval of a plan of development and operation on each producing geothermal

system and may issue <u>orders appropriate to carry out the purposes and intent of this chapter, including orders regarding establishment of drilling units for pools as set out in AS 31.05.100 and orders regarding unitization and unitized operation of pools and integration of interests by agreement as set out in AS 31.05.110 [WELL-SPACING AND POOLING ORDERS, LIMITS ON PRODUCTION, AND REINJECTION REQUIREMENTS, IN ORDER TO PREVENT WASTE, PROMOTE MAXIMUM ECONOMIC RECOVERY, AND PROTECT CORRELATIVE RIGHTS].</u>

#### \* Sec. 5. AS 41.06.030(b) is amended to read:

- (b) Lessees of all or part of a geothermal system <u>including at least one state</u>

  <u>lease</u> may enter into a unit agreement for cooperative development, with the approval of the commissioner <u>of the Department of Natural Resources</u>. The commissioner <u>of the Department of Natural Resources</u> may suspend or modify the approved development plan in accordance with the unit agreement.
- \* Sec. 6. AS 41.06.030(c) is amended to read:
  - (c) If the owners of at least two-thirds of the leasehold interests in a geothermal system ratify a unit agreement approved <u>under (b) of this section</u> by the commissioner <u>of the Department of Natural Resources</u>, the <u>commission</u> [COMMISSIONER] may enforce the agreement as to lessees not a party to the agreement by allocating production under the principle of correlative rights and by apportioning costs and revenues.
- \* Sec. 7. AS 41.06.040(a) is repealed and reenacted to read:
  - (a) The commission shall adopt regulations under AS 44.62, issue orders, and take other appropriate action to carry out the purposes and intent of this chapter, including regulations to prevent
  - (1) geothermal resources, water or other fluids, and gases from escaping into strata other than that in which they are found, unless in accordance with an approved reinjection program;
    - (2) contamination of surface and groundwater:
  - (3) premature degradation of a geothermal system by water encroachment or otherwise;

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- (4) blowouts, cavings, and seepage; and
- (5) unreasonable disturbance or injury to neighboring properties, prior water rights, prior oil or gas rights, human life, health, and the natural environment.
- \* **Sec. 8.** AS 41.06.040(b) is amended to read:
  - (b) The **commission** [COMMISSIONER] shall cause the operator of a geothermal well or wells to file adequate individual or blanket surety bonds to ensure compliance with regulations adopted under this **section** [SUBSECTION].
- \* Sec. 9. AS 41.06.040(c) is amended to read:
  - (c) The <u>commission</u> [COMMISSIONER] shall require a geothermal operator to notify the <u>commission</u> [DEPARTMENT] if the operator discovers significant quantities of hydrocarbon substances, helium, or fissionable materials.
- \* Sec. 10. AS 41.06.040(d) is amended to read:
  - (d) The <u>commission and its staff</u> [COMMISSIONER] may enter upon any property, public or private, to inspect a geothermal operation for compliance with regulations adopted under this section.
- \* Sec. 11. AS 41.06.050 is repealed and reenacted to read:
  - **Sec. 41.06.050. Permits to drill.** (a) A person shall apply for and receive a permit from the commission before drilling
    - (1) a well in search of geothermal resources; or
  - (2) a well in support of the recovery or production of geothermal resources.
  - (b) The application must contain sufficient information to enable the commission to determine whether the operation of the well will interfere with or impair a prior water, oil, or gas right.
  - (c) A person must submit a separate permit application for each well. The permit application must be in the form or format required by the commission and include all information required by the commission.
  - (d) After receiving an application under (a) of this section, the commission shall promptly approve or deny the application for a permit to drill.
  - (e) In making the determination under (d) of this section, the commission shall consider whether

- (1) a proposed geothermal operation will significantly interfere with or substantially impair prior water, oil, or gas rights;
- (2) the proposed well is contrary to a provision of this chapter, a regulation adopted by the commission, or other law, or to an order, stipulation, or term of a permit issued by the commission; and
- (3) an applicant is in violation of a provision of this chapter, a regulation adopted by the commission, or other law, or of an order, stipulation, or term of a permit issued by the commission and the magnitude of the violation.
- \* Sec. 12. AS 41.06 is amended by adding a new section to read:
  - Sec. 41.06.055. Regulated geothermal well regulatory cost charge. (a) Every person that on the first day of a state fiscal year is the operator of a well for which a permit to drill has been issued under AS 41.06.050 and that has not, before that day, been plugged and abandoned and reported as abandoned in accordance with regulations of the commission shall pay to the commission an annual regulatory charge for that fiscal year. A regulatory cost charge may not be collected from a person unless the operation for which the person is responsible is within the jurisdiction of the commission.
  - (b) The commission shall annually determine regulatory cost charges under this section. The regulatory cost charge to be paid by a person for a state fiscal year must be based on the total volume during the most recently concluded calendar year for the wells described in (a) of this section of which the person was the operator on the first day of the fiscal year as a percentage of the total volume during the same calendar year for all wells described in (a) of this section. For purposes of this subsection, "total volume" means the sum of the volume of all geothermal resources produced from a well and all fluids and substances injected or otherwise artificially introduced into the well.
  - (c) The commission shall determine the regulatory cost charges levied under this section so that the total amount to be collected approximately equals the appropriations made for the operating costs of the commission that have been incurred under this chapter for the fiscal year.
    - (d) The commission shall administer the collection of the regulatory cost

 charges imposed under this section. The Department of Administration shall identify the amount of the appropriations made for the operating costs of the commission under this chapter that lapses into the general fund each year. The legislature may appropriate to the commission for its operating costs under this chapter for the next fiscal year an amount that is at least equal to the lapsed amount. If the legislature makes an appropriation to the commission under this subsection that is at least equal to the lapsed amount, the commission shall reduce the total regulatory cost charge collected for that fiscal year by a comparable amount.

- (e) The commission may adopt regulations relating to the investigation of the accuracy of reported information and for collecting required payments under this section.
- \* Sec. 13. AS 41.06.060 is repealed and reenacted to read:
  - Sec. 41.06.060. Definitions. In this chapter, unless the context otherwise requires,
  - (1) "commission" means the Alaska Oil and Gas Conservation Commission created under AS 31.05.005;
  - (2) "correlative rights" means the opportunity afforded, so far as it is practicable to do so, to the owner of each property in a geothermal system to produce without waste the owner's just and equitable share of the geothermal resources in the geothermal system; being an amount, so far as can be practically determined, and so far as can be practically obtained without waste, substantially in the proportion that the quantity of recoverable geothermal resources under the owner's property bears to the total recoverable geothermal resources in the geothermal system, and for such purposes to use the owner's just and equitable share of the geothermal system;
  - (3) "geothermal fluid" means liquids and steam related to the presence of geothermal resources and present in a geothermal system;
    - (4) "geothermal resources"
      - (A) means the natural heat of the earth;
      - (B) includes
    - (i) the energy, including pressure, in whatever form present in, resulting from, created by, or that may be extracted from

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that natural heat;

- (ii) the material medium, including steam and other gases, hot water, and hot brines constituting the geothermal fluid naturally present, as well as substances artificially introduced to serve as a heat transfer medium; and
- (iii) all dissolved or entrained minerals and gases that may be obtained from the material medium, but excluding hydrocarbon substances and helium;
- (5) "geothermal system" means a stratum, pool, reservoir, or other geologic formation containing geothermal resources;

WORK DRAFT

- (6) "operator" means a person drilling, maintaining, operating, producing, or in control of a well;
- (7) "owner" means the person who has the right to drill into or produce from a geothermal system and to appropriate the geothermal resources produced from a geothermal system for that person and others;
  - (8) "waste" means
    - (A) in addition to its ordinary meaning, "physical waste";
  - (B) includes an inefficient, excessive, or improper production, use, or dissipation of geothermal resources, including
    - (i) drilling, transporting, or storage methods that cause or tend to cause unnecessary surface loss of geothermal resources;
    - (ii) locating, spacing, drilling, equipping, operating, producing, or venting of a well in a manner that results or tends to result in reducing the ultimate economic recovery of geothermal resources;
- (9) "well" means a well drilled, converted, or reactivated for the discovery, testing, production, or subsurface injection of geothermal resources.
- \* Sec. 14. AS 41.06.030(d) and 41.06.040(e) are repealed.
- \* Sec. 15. The uncodified law of the State of Alaska is amended by adding a new section to read:
  - TRANSITION: REGULATIONS. (a) To the extent the regulations are not

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inconsistent with the language and purposes of this Act, regulations relating to geothermal wells adopted by the Department of Natural Resources under AS 41.06 before the effective date of this section remain in effect as valid regulations implementing this Act. The Alaska Oil and Gas Conservation Commission may administer and enforce those previously adopted regulations under AS 41.06 relating to geothermal wells until the Alaska Oil and Gas Conservation Commission adopts regulations in accordance with this Act.

- (b) The Alaska Oil and Gas Conservation Commission may immediately proceed to adopt regulations necessary to implement the changes made by this Act. The regulations take effect under AS 44.62 (Administrative Procedure Act), but not before July 1, 2010.
  - \* Sec. 16. Section 15(b) of this Act takes effect immediately under AS 01.10.070(c).
  - \* Sec. 17. Notwithstanding sec. 16 of this Act, this Act takes effect July 1, 2010.

# STATE OF ALASKA

### ALASKA OIL AND GAS CONSERVATION COMMISSION

SEAN PARNELL, GOVERNOR

333 W. 7th AVENUE, SUITE 100 ANCHORAGE, ALASKA 99501-3539 PHONE (907) 279-1433 FAX (907) 276-7542

November 11, 2009

#### Hand Delivered

Jerry Gallagher Legislative and Communications Director Office of Governor Sean Parnell 550 West 7<sup>th</sup> Ave., Suite 1700 Anchorage, Alaska 99501

Re:

Alaska Oil and Gas Conservation Commission

2010 Agency Legislative Proposal Form

Geothermal Resource

Dear Mr. Gallagher:

Enclosed is a "2010 Legislative Proposal Form" you requested describing a proposed amendment to AS 41.06.010 to assign the responsibility for regulation of geothermal resource wells to the Alaska Oil and Gas Conservation Commission (AOGCC). Senator Lesil McGuire intends to sponsor this as part of other geothermal legislation planned to be brought forward by the Senate Resources Committee this legislative session.

The AOGCC supports this amendment because it would result in streamlining the drilling permit process which would help the state's economics. The streamlining would occur because the AOGCC is the only agency in the state that has engineering expertise in drilling, there will be fewer state employees involved, and there will be one less agency involved in the permitting process. It is notable that geothermal operations in all but two other oil and gas producing states are regulated by agencies similar to the AOGCC.

Commissioners Irwin and Kreitzer are aware this is being submitted; and, we are coordinating with DNR.

If you have any questions, please do not hesitate to contact me at 793-1227.

Daniel T. Seamount, Jr.

Chair

cc:

Senator Lesil McGuire

Annette Kreitzer, Commissioner DOA

Thomas Irwin, Commissioner DNR

Kevin Banks, Director DNR/DOG

Jonne Slemons, DNR, DOG Petroleum Land Manager

### Confidential and Deliberative Process 2010 Agency Legislative Proposal Form

Agency: Alaska Oil ( Contact Name: Chai	and Gas Conservation ( r, Dan Seamount	Commission (AOGCC) Contact Number: (907) 279-1433
Focus Area (Check a		
X Economic De	•	
	Within Our Means	A
<del></del>	onsibility/ Empowering	•
Administrativ	e Legislation (Sunsets,	etc)
Subject and summa	my of proposed logisle	tion (include intent and statutory references):
-	• • • •	the Alaska Oil and Gas Conservation
		isi-judicial agency of the State of Alaska
	•	sibility for regulation and oversight of
	e wells. (Authority for	leasing geothermal resources on state lands
Legislation best intr	oduced by:	
	Governor's Office	<u>X</u> Legislator
<del></del>	<del>-</del>	reason: Senator Lesil McGuire has a
		islation she plans to introduce; or, may be
introduced as a Send	ate Resources Commit	tee bill.
Estimated fiscal imr	pact: operating capita	al, generating revenue \$
<del>-</del>		ewer state employees needed to regulate
Alaska's growing ge		.wer state employees needed to regulate

#### List proposed funding sources.

Initial cost of regulation can be absorbed by AOGCC. Once production begins, costs of regulation will be assessed to industry as part of the Regulatory Cost Charge paid by industry pursuant to AS 31.05.093.

Priority level of the legislation: _XHIGHMEDIUMLOW Priority ranking in comparison to other proposals submitted by department Several projects already underway . Others planned for the coming season.
Explain the benefits the proposed legislation would provide.  Safer and more efficient permitting and oversight of geothermal wells leading to shortened project timing through use of AOGCC drilling experts. Fewer state employees will be needed to regulate Alaska's growing geothermal program.
Explain the consequences, if any, of not implementing the proposed statutory change.  Continued inefficient permitting process and operator confusion about authority.  Need for DNR to hire drilling engineer, field inspector, and operations engineer.  Potential interference with oil and gas exploration and production in the same areas where geothermal drilling is planned.
Describe any potential negative impacts of this legislation and how they would be minimized. None. Geothermal drilling is currently regulated by DNR pursuant to AS 41.06. Proposed legislation would simply transfer regulatory authority from DNR to AOGCC.
Who do you anticipate will support the bill and why? Include municipalities, groups, etc  Operators, and local governments. AOGCC regulation will result in more efficient permitting and less confusion over authority. DNR agrees that regulation of geothermal drilling and well operations should be overseen by AOGCC.

Who do you anticipate will oppose the bill and why? No opposition expected.

What other state departments will be affected by this legislation? Have you discussed the impact with the commissioners of these affected departments, and if so, do they support the bill?

DNR. Yes. They do.

Identify and describe any previous state or federal legislation or similar efforts in other states which affect or relate to this proposal.

In all other oil and gas producing states, geothermal regulatory authority resides with the same agency that regulates oil & gas drilling and production (only exceptions are Utah and Idaho, which are not major oil & gas producing states.)

Has this bill topic been previously introduced in the legislature? No. What was the final outcome and why? n/a

Submitted by and approved by Commissioner:

Commissioner and Chair, AOGCC

cc: Commissioner, Department of Natural Resources Commissioner, Department of Administration

# STATE OF ALASKA

### ALASKA OIL AND GAS CONSERVATION COMMISSION

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If you have any questions, please do not hesitate to contact me at 793-1227.

Daniel T. Seamount, Jr.

Chair

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Annette Kreitzer, Commissioner DOA

Thomas Irwin, Commissioner DNR

Kevin Banks, Director DNR/DOG

Jonne Slemons, DNR, DOG Petroleum Land Manager

### Confidential and Deliberative Process 2010 Agency Legislative Proposal Form

Agency: Alaska Oil and Gas Conservation	Commission (AOGCC)
Contact Name: Chair, Dan Seamount	Contact Number: (907) 279-1433
Focus Area (Check all that apply)  X Economic Development  X Government Within Our Means Personal Responsibility/ Empower  Administrative Legislation (Sunsets	<del>-</del>
Amend AS 41.06.010, <u>et.</u> <u>seq.,</u> to assign t Commission (AOGCC), an independent qu created pursuant to AS 31.05.005, respon	asi-judicial agency of the State of Alaska
	X Legislator I reason: Senator Lesil McGuire has a gislation she plans to introduce; or, may be ittee bill.
Estimated fiscal impact: operating, capit Will improve project timing and result in f Alaska's growing geothermal program.	al, generating revenue \$ fewer state employees needed to regulate

#### List proposed funding sources.

Initial cost of regulation can be absorbed by AOGCC. Once production begins, costs of regulation will be assessed to industry as part of the Regulatory Cost Charge paid by industry pursuant to AS 31.05.093.

Priority level of the legislation: _X_HIGHMEDIUMLOW Priority ranking in comparison to other proposals submitted by department Several projects already underway . Others planned for the coming season.
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Identify and describe any previous state or federal legislation or similar efforts in other states which affect or relate to this proposal.

In all other oil and gas producing states, geothermal regulatory authority resides with the same agency that regulates oil & gas drilling and production (only exceptions are Utah and Idaho, which are not major oil & gas producing states.)

Has this bill topic been previously introduced in the legislature?  $\it No.$  What was the final outcome and why?  $\it n/a$ 

Submitted by and approved by Commissioner:

Commissioner and Chair, AOGCC

cc: Commissioner, Department of Natural Resources
Commissioner, Department of Administration

#### Colombie, Jody J (DOA)

From:

Norman, John K (DOA)

Sent:

Tuesday, November 10, 2009 4:42 PM

To:

Colombie, Jody J (DOA)

Cc:

Foerster, Catherine P (DOA); Seamount, Dan T (DOA)

Subject:

FW: Legislative Proposal Form

Attachments:

2010 Department Legislative Proposal Form (3).doc

Jody this is now ready (with the two edits) to be sent to Governor's office. Dan should sign and he may want to add a cover and cc Annette and Tom Irwin.

You should open a file on this geothermal Legislative Proposal. We will have a lot more to go in it as bill is being drafted and works its way through the legislature.

From: Slemons, Jonne D (DNR)

Sent: Tuesday, November 10, 2009 4:06 PM

**To:** Norman, John K (DOA) **Cc:** Banks, Kevin R (DNR)

**Subject:** Legislative Proposal Form

Comm. Norman,

We've reviewed the proposed Legislative Proposal Form, and have only two minor edits. If you have any questions please let me know.

We are also working on several other issues that could be addressed through a statutory "package" if there is the will to do so. Those issues are currently in rough form, but we are working to refine them now. We will contact you if and when it appears that discussion on those issues is appropriate, and as soon as necessary background information, etc. has been collected.

Thank you, Jonne

Jonne Slemons
Petroleum Land Manager
Division of Oil and Gas
Alaska Department of Natural Resources
550 W. 7th Ave., Ste. 800
Anchorage, AK 99501

Ph: 907-269-8775 Fax: 907-269-3484 exciting.

Please let me know if you have any questions.

Thanks Mindy

Mindy Rowland

Deputy Legislative Director
Office of Governor Sean Parnell

Cell: 723-4636

From: Foerster, Catherine P (DOA)
To: Rowland, Mindy B (GOV)
Cc: Gallagher, Gerald L (GOV)
Sent: Wed Oct 14 07:38:01 2009
Subject: RE: geothermal legislation

Mindy,

Thanks in advance for sending me the correct form. Or perhaps it would be easier for you just to tell me where I

can find it.

From: Gallagher, Gerald L (GOV)

Sent: Tuesday, October 13, 2009 5:14 PM

**To:** Foerster, Catherine P (DOA) **Cc:** Rowland, Mindy B (GOV) **Subject:** RE: geothermal legislation

Cathy – Mindy will send you the official Governor's Office form for proposed legislation. The form went to all Departments in late summer, but I guess the Dept. of Administration didn't think to give it to all their agencies. We'll run it through the process when you get it back to us. It's easy to fill out, even for an engineer.

Jerry Gallagher

Legislative and Communications Director
Office of Governor Sean Parnell

550 West 7<sup>th</sup> Ave, Suite 1700 Anchorage, Alaska 99501 PHONE: 907.269.7450

gerald.gallagher@alaska.gov www.gov.state.ak.us

From: Foerster, Catherine P (DOA)

Sent: Tuesday, October 13, 2009 1:09 PM

**To:** Gallagher, Gerald L (GOV) **Subject:** RE: geothermal legislation

Thanks. What do we need to do to get approval from the Governor's office?

From: Gallagher, Gerald L (GOV)

Sent: Monday, October 12, 2009 4:51 PM

**To:** Foerster, Catherine P (DOA) **Subject:** RE: geothermal legislation

If you want to ask a friendly to introduce legislation, we would have to approve, have Dept. of Law do the drafting, then give it back to you to work directly with a legislator. So if you want to go through the hoops, let me know.

## Jerry Gallagher Legislative and Communications Director Office of Governor Sean Parnell

550 West 7<sup>th</sup> Ave, Suite 1700 Anchorage, Alaska 99501 PHONE: 907.269.7450

gerald.gallagher@alaska.gov www.gov.state.ak.us

From: Foerster, Catherine P (DOA)

Sent: Monday, October 12, 2009 1:51 PM

**To:** Gallagher, Gerald L (GOV) **Subject:** geothermal legislation

Jerry,

When we spoke today, I got the impression that it would be okay if we pursue geothermal legislation through a legislator rather than through the Governor's office. Please confirm that I got that right, or else please let me know that I was mistaken.

Cathy

PS. It was nice visiting with you. And if I ever put a Jerry Gallagher quote on my wall, I'm sure it'll be a good one.

#### Norman, John K (DOA)

From:

Foerster, Catherine P (DOA)

Sent:

Thursday, October 15, 2009 8:27 AM

To:

Norman, John K (DOA); Seamount, Dan T (DOA); Ballantine, Tab A (LAW)

Subject:

FW: geothermal legislation

Attachments: 2010 Department Legislative Proposal Form.doc

Attached is the "approval" form. John, how about you and I work on it tomorrow? Tab, you're welcome to join us if you so choose. Dan, you're gone so you can insert yourself next week when you return.

From: Rowland, Mindy B (GOV)

Sent: Thursday, October 15, 2009 8:20 AM

**To:** Foerster, Catherine P (DOA) **Cc:** Gallagher, Gerald L (GOV) **Subject:** RE: geothermal legislation

Good Morning Cathy,

Thank you for your patience. I am finally at a computer where I can access the legislative proposal form. I've attached it here for you.

Please let me know if you have any questions and if there is anything else I can do to assist.

Mindy

Mindy Rowland

Legislative Deputy Director

Office of Governor Sean Parnell

PO Box 110001 Juneau, Alaska 99811 PHONE: 907.465.4021 CELL: 907.723.4636

mindy.rowland@alaska.gov www.gov.state.ak.us

From: Rowland, Mindy B (GOV)

Sent: Wednesday, October 14, 2009 2:48 PM

**To:** Foerster, Catherine P (DOA) **Subject:** Re: geothermal legislation

Hi Cathy

The form isn't posted and unfortunately, I have not been near a computer for the last couple of days to access my files to send it to you. I may have some luck this evening. If not, I'll get it to you tomorrow morning. I apologize for taking so long.

If you're anxious to get started, some of the information needed will be pros and cons, who is likely to support/oppose, consequences of not making the change, whether the proposal had been considered in the past (such as a similar bill that failed to make it through in an earlier session), and an outline of the proposal. I think there may be one or two other items but I can't recall them off the top of my head.

I'm looking forward to seeing what you have to suggest on geothermal leasing. The potential of this resource is